THINKING KIDS

Singapore MATH

LEVEL 2 A&B

Appropriate for students in Grade 3

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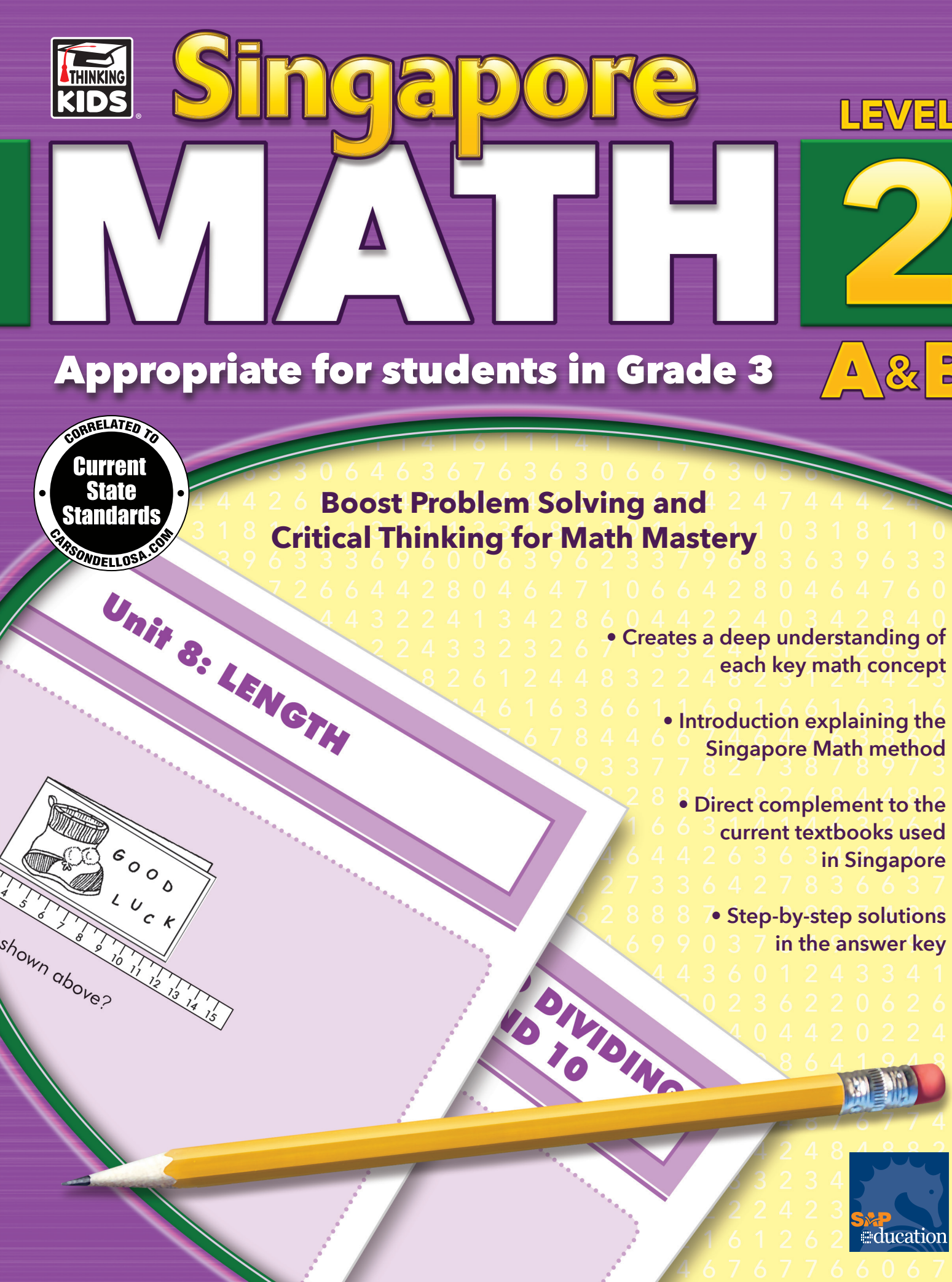
Boost Problem Solving and Critical Thinking for Math Mastery



- Creates a deep understanding of each key math concept
- Introduction explaining the Singapore Math method
- Direct complement to the current textbooks used in Singapore
- Step-by-step solutions in the answer key

SAP Education

Singapore MATH

LEVEL 2 A&B

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INTRODUCTION TO SINGAPORE MATH

Welcome to Singapore Math! The math curriculum in Singapore has been recognized worldwide for its excellence in producing students highly skilled in mathematics. Students in Singapore have ranked at the top in the world in mathematics on the *Trends in International Mathematics and Science Study* (TIMSS) in 1993, 1995, 2003, and 2008. Because of this, Singapore Math has gained in interest and popularity in the United States.

Singapore Math curriculum aims to help students develop the necessary math concepts and process skills for everyday life and to provide students with the ability to formulate, apply, and solve problems. Mathematics in the Singapore Primary (Elementary) Curriculum cover fewer topics but in greater depth. Key math concepts are introduced and built on to reinforce various mathematical ideas and thinking. Students in Singapore are typically one grade level ahead of students in the United States.

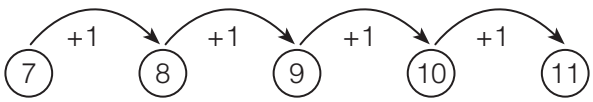
The following pages provide examples of the various math problem types and skill sets taught in Singapore.

At an elementary level, some simple mathematical skills can help students understand mathematical principles. These skills are the counting-on, counting-back, and crossing-out methods. Note that these methods are most useful when the numbers are small.

1. The Counting-On Method

Used for addition of two numbers. Count on in 1s with the help of a picture or number line.

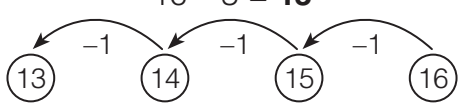
7 + 4 = **11**



2. The Counting-Back Method

Used for subtraction of two numbers. Count back in 1s with the help of a picture or number line.

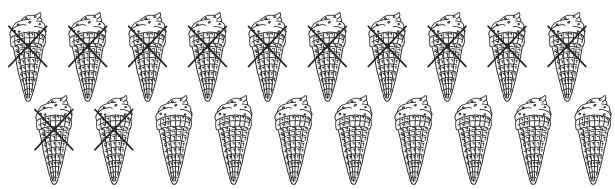
16 – 3 = **13**



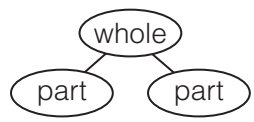
3. The Crossing-Out Method

Used for subtraction of two numbers. Cross out the number of items to be taken away. Count the remaining ones to find the answer.

20 – 12 = **8**



A **number bond** shows the relationship in a simple addition or subtraction problem. The number bond is based on the concept "part-part-whole." This concept is useful in teaching simple addition and subtraction to young children.

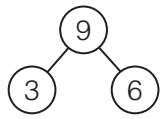


To find a whole, students must add the two parts.

To find a part, students must subtract the other part from the whole.

The different types of number bonds are illustrated on the next page.

1. Number Bond (single digits)

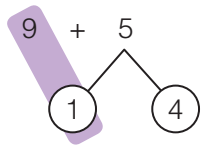


3 (part) + 6 (part) = **9** (whole)

9 (whole) – 3 (part) = **6** (part)

9 (whole) – 6 (part) = **3** (part)

2. Addition Number Bond (single digits)

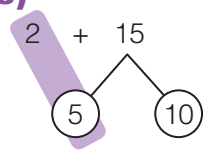


= 9 + 1 + 4 Make a ten first.

= 10 + 4

= **14**

3. Addition Number Bond (double and single digits)

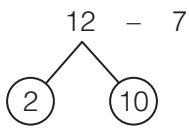


= 2 + 5 + 10 Regroup 15 into 5 and 10.

= 7 + 10

= **17**

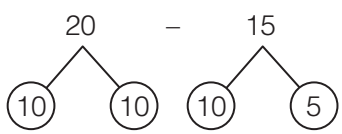
4. Subtraction Number Bond (double and single digits)



10 – 7 = 3

3 + 2 = **5**

5. Subtraction Number Bond (double digits)



10 – 5 = 5

10 – 10 = 0

5 + 0 = **5**

Students should understand that multiplication is repeated addition and that division is the grouping of all items into equal sets.

1. Repeated Addition (Multiplication)

Mackenzie eats 2 rolls a day. How many rolls does she eat in 5 days?

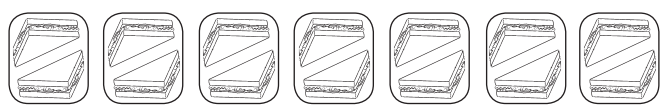
2 + 2 + 2 + 2 + 2 = 10

5 × 2 = 10

She eats **10** rolls in 5 days.

2. The Grouping Method (Division)

Mrs. Lee makes 14 sandwiches. She gives all the sandwiches equally to 7 friends. How many sandwiches does each friend receive?



14 ÷ 7 = 2

Each friend receives **2** sandwiches.

One of the basic but essential math skills students should acquire is to perform the 4 operations of whole numbers and fractions. Each of these methods is illustrated below.

1. The Adding-Without-Regrouping Method

	H	T	O
	3	2	1
+	5	6	8
	8	**8**	**9**

O: Ones

T: Tens

H: Hundreds

Since no regrouping is required, add the digits in each place value accordingly.

2. The Adding-by-Regrouping Method

	H	T	O
	$^{1}4$	9	2
+	1	5	3
	6	**4**	**5**

O: Ones

T: Tens

H: Hundreds

In this example, regroup 14 tens into 1 hundred 4 tens.

3. The Adding-by-Regrouping-Twice Method

H	T	O
$^{1}2$	$^{1}8$	6
+ 3	6	5
6	**5**	**1**

O: Ones
T: Tens
H: Hundreds

Regroup twice in this example.
First, regroup 11 ones into 1 ten 1 one.
Second, regroup 15 tens into 1 hundred 5 tens.

4. The Subtracting-Without-Regrouping Method

H	T	O
7	3	9
− 3	2	5
4	**1**	**4**

O: Ones
T: Tens
H: Hundreds

Since no regrouping is required, subtract the digits in each place value accordingly.

5. The Subtracting-by-Regrouping Method

H	T	O
5	$^{7}\not{8}$	$^{11}\not{1}$
− 2	4	7
3	**3**	**4**

O: Ones
T: Tens
H: Hundreds

In this example, students cannot subtract 7 ones from 1 one. So, regroup the tens and ones. Regroup 8 tens 1 one into 7 tens 11 ones.

6. The Subtracting-by-Regrouping-Twice Method

H	T	O
$^{7}\not{8}$	$^{9}\not{0}$	$^{10}\not{0}$
− 5	9	3
2	**0**	**7**

O: Ones
T: Tens
H: Hundreds

In this example, students cannot subtract 3 ones from 0 ones and 9 tens from 0 tens. So, regroup the hundreds, tens, and ones. Regroup 8 hundreds into 7 hundreds 9 tens 10 ones.

7. The Multiplying-Without-Regrouping Method

T	O
2	4
×	2
4	**8**

O: Ones
T: Tens

Since no regrouping is required, multiply the digit in each place value by the multiplier accordingly.

8. The Multiplying-With-Regrouping Method

H	T	O
$^{1}3$	$^{2}4$	9
×		3
1, 0	**4**	**7**

O: Ones
T: Tens
H: Hundreds

In this example, regroup 27 ones into 2 tens 7 ones, and 14 tens into 1 hundred 4 tens.

9. The Dividing-Without-Regrouping Method

$$
\begin{array}{r}
\textbf{2\ 4\ 1} \\
2\overline{)\,4\ 8\ 2} \\
-4 \\
\hline
8\ 2 \\
-8 \\
\hline
2 \\
-2 \\
\hline
0
\end{array}
$$

Since no regrouping is required, divide the digit in each place value by the divisor accordingly.

10. The Dividing-With-Regrouping Method

$$
\begin{array}{r}
\textbf{1\ 6\ 6} \\
5\overline{)\,8\ 3\ 0} \\
-5 \\
\hline
3\ 3 \\
-3\ 0 \\
\hline
3\ 0 \\
-3\ 0 \\
\hline
0
\end{array}
$$

In this example, regroup 3 hundreds into 30 tens and add 3 tens to make 33 tens. Regroup 3 tens into 30 ones.

11. The Addition-of-Fractions Method

$$\frac{1}{6} \times \frac{2}{2} + \frac{1}{4} \times \frac{3}{3} = \frac{2}{12} + \frac{3}{12} = \mathbf{\frac{5}{12}}$$

Always remember to make the denominators common before adding the fractions.

12. The Subtraction-of-Fractions Method

$$\frac{1}{2} \times \frac{5}{5} - \frac{1}{5} \times \frac{2}{2} = \frac{5}{10} - \frac{2}{10} = \mathbf{\frac{3}{10}}$$

Always remember to make the denominators common before subtracting the fractions.

13. The Multiplication-of-Fractions Method

$$\frac{\cancel{3}^{1}}{5} \times \frac{1}{\cancel{9}_{3}} = \mathbf{\frac{1}{15}}$$

When the numerator and the denominator have a common multiple, reduce them to their lowest fractions.

14. The Division-of-Fractions Method

$$\frac{7}{9} \div \frac{1}{6} = \frac{7}{\cancel{9}_{3}} \times \frac{\cancel{6}^{2}}{1} = \frac{14}{3} = \mathbf{4\frac{2}{3}}$$

When dividing fractions, first change the division sign (÷) to the multiplication sign (×). Then, switch the numerator and denominator of the fraction on the right hand side. Multiply the fractions in the usual way.

Model drawing is an effective strategy used to solve math word problems. It is a visual representation of the information in word problems using bar units. By drawing the models, students will know of the variables given in the problem, the variables to find, and even the methods used to solve the problem.

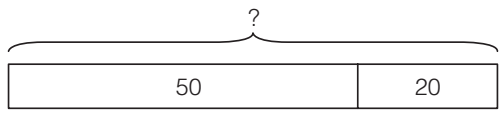
Drawing models is also a versatile strategy. It can be applied to simple word problems involving addition, subtraction, multiplication, and division. It can also be applied to word problems related to fractions, decimals, percentage, and ratio.

The use of models also trains students to think in an algebraic manner, which uses symbols for representation.

The different types of bar models used to solve word problems are illustrated below.

1. The model that involves addition

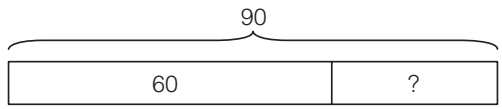
Melissa has 50 blue beads and 20 red beads. How many beads does she have altogether?



50 + 20 = **70**

2. The model that involves subtraction

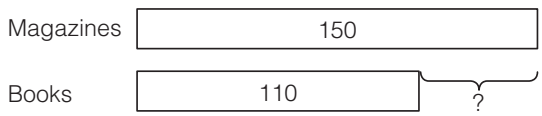
Ben and Andy have 90 toy cars. Andy has 60 toy cars. How many toy cars does Ben have?



90 – 60 = **30**

3. The model that involves comparison

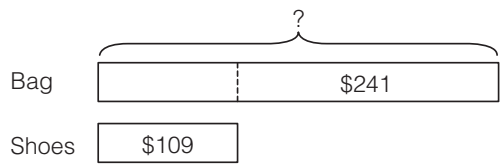
Mr. Simons has 150 magazines and 110 books in his study. How many more magazines than books does he have?



150 – 110 = **40**

4. The model that involves two items with a difference

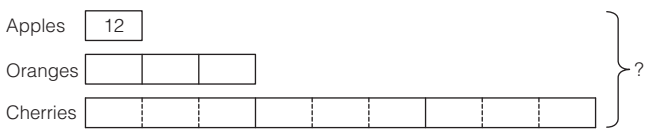
A pair of shoes costs $109. A leather bag costs $241 more than the pair of shoes. How much is the leather bag?



$109 + $241 = **$350**

5. The model that involves multiples

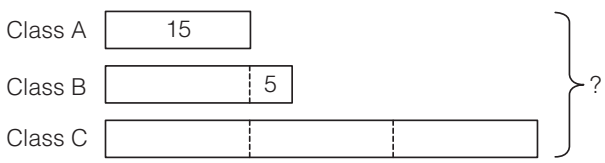
Mrs. Drew buys 12 apples. She buys 3 times as many oranges as apples. She also buys 3 times as many cherries as oranges. How many pieces of fruit does she buy altogether?



13 × 12 = **156**

6. The model that involves multiples and difference

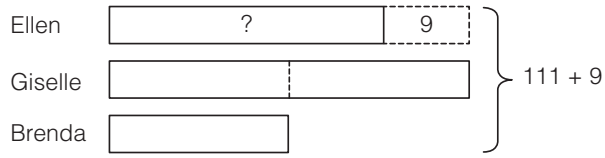
There are 15 students in Class A. There are 5 more students in Class B than in Class A. There are 3 times as many students in Class C than in Class A. How many students are there altogether in the three classes?



(5 × 15) + 5 = **80**

7. The model that involves creating a whole

Ellen, Giselle, and Brenda bake 111 muffins. Giselle bakes twice as many muffins as Brenda. Ellen bakes 9 fewer muffins than Giselle. How many muffins does Ellen bake?

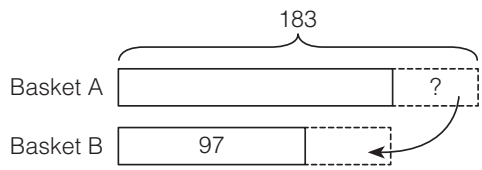


(111 + 9) ÷ 5 = 24

(2 × 24) – 9 = **39**

8. The model that involves sharing

There are 183 tennis balls in Basket A and 97 tennis balls in Basket B. How many tennis balls must be transferred from Basket A to Basket B so that both baskets contain the same number of tennis balls?

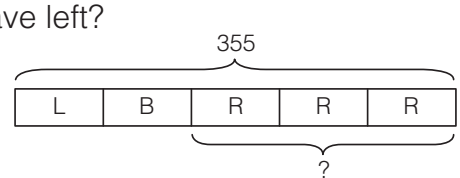


183 – 97 = 86

86 ÷ 2 = **43**

9. The model that involves fractions

George had 355 marbles. He lost $\frac{1}{5}$ of the marbles and gave $\frac{1}{4}$ of the remaining marbles to his brother. How many marbles did he have left?



L: Lost
B: Brother
R: Remaining

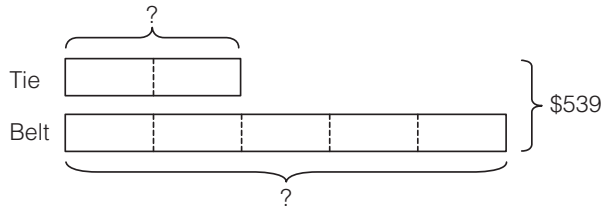
5 parts → 355 marbles
1 part → 355 ÷ 5 = 71 marbles
3 parts → 3 × 71 = **213** marbles

10. The model that involves ratio

Aaron buys a tie and a belt. The prices of the tie and belt are in the ratio 2 : 5. If both items cost $539,

(a) what is the price of the tie?

(b) what is the price of the belt?



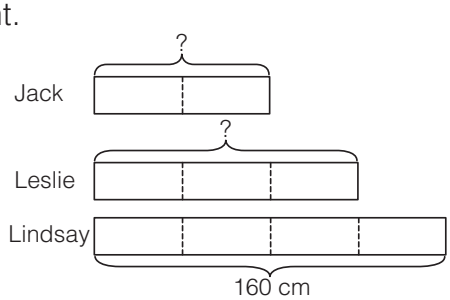
$539 ÷ 7 = $77

Tie (2 units) → 2 x $77 = **$154**

Belt (5 units) → 5 x $77 = **$385**

11. The model that involves comparison of fractions

Jack's height is $\frac{2}{3}$ of Leslie's height. Leslie's height is $\frac{3}{4}$ of Lindsay's height. If Lindsay is 160 cm tall, find Jack's height and Leslie's height.



1 unit → 160 ÷ 4 = 40 cm

Leslie's height (3 units) → 3 × 40 = **120 cm**

Jack's height (2 units) → 2 × 40 = **80 cm**

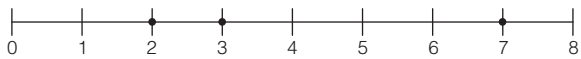
Thinking skills and strategies are important in mathematical problem solving. These skills are applied when students think through the math problems to solve them. The following are some commonly used thinking skills and strategies applied in mathematical problem solving.

1. Comparing

Comparing is a form of thinking skill that students can apply to identify similarities and differences.

When comparing numbers, look carefully at each digit before deciding if a number is greater or less than the other. Students might also use a number line for comparison when there are more numbers.

Example:



3 is greater than 2 but smaller than 7.

2. Sequencing

A sequence shows the order of a series of numbers. *Sequencing* is a form of thinking skill that requires students to place numbers in a particular order. There are many terms in a sequence. The terms refer to the numbers in a sequence.

To place numbers in a correct order, students must first find a rule that generates the sequence. In a simple math sequence, students can either add or subtract to find the unknown terms in the sequence.

Example: Find the 7th term in the sequence below.

1,	4,	7,	10,	13,	16	?
1st term	2nd term	3rd term	4th term	5th term	6th term	7th term

Step 1: This sequence is in an increasing order.

Step 2: 4 – 1 = 3 7 – 4 = 3
The difference between two consecutive terms is 3.

Step 3: 16 + 3 = 19
The 7th term is **19**.

3. Visualization

Visualization is a problem solving strategy that can help students visualize a problem through the use of physical objects. Students will play a more active role in solving the problem by manipulating these objects.

The main advantage of using this strategy is the mobility of information in the process of solving the problem. When students make a wrong step in the process, they can retrace the step without erasing or canceling it.

The other advantage is that this strategy helps develop a better understanding of the problem or solution through visual objects or images. In this way, students will be better able to remember how to solve these types of problems.

Some of the commonly used objects for this strategy are toothpicks, straws, cards, strings, water, sand, pencils, paper, and dice.

4. Look for a Pattern

This strategy requires the use of observational and analytical skills. Students have to observe the given data to find a pattern in order to solve the problem. Math word problems that involve the use of this strategy usually have repeated numbers or patterns.

Example: Find the sum of all the numbers from 1 to 100.

Step 1: Simplify the problem.

Find the sum of 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.

Step 2: Look for a pattern.

$1 + 10 = 11$ $2 + 9 = 11$

$3 + 8 = 11$ $4 + 7 = 11$

$5 + 6 = 11$

Step 3: Describe the pattern.

When finding the sum of 1 to 10, add the first and last numbers to get a result of 11. Then, add the second and second last numbers to get the same result. The pattern continues until all the numbers from 1 to 10 are added. There will be 5 pairs of such results. Since each addition equals 11, the answer is then $5 \times 11 = 55$.

Step 4: Use the pattern to find the answer.

Since there are 5 pairs in the sum of 1 to 10, there should be ($10 \times 5 = 50$ pairs) in the sum of 1 to 100.

Note that the addition for each pair is not equal to 11 now. The addition for each pair is now ($1 + 100 = 101$).

$50 \times 101 = 5050$

The sum of all the numbers from 1 to 100 is **5,050**.

5. Working Backward

The strategy of working backward applies only to a specific type of math word problem. These word problems state the end result, and students are required to find the total number. In order to solve these word problems, students have to work backward by thinking through the correct sequence of events. The strategy of working backward allows students to use their logical reasoning and sequencing to find the answers.

Example: Sarah has a piece of ribbon. She cuts the ribbon into 4 equal parts. Each part is then cut into 3 smaller equal parts. If the length of each small part is 35 cm, how long is the piece of ribbon?

$3 \times 35 = 105$ cm

$4 \times 105 = 420$ cm

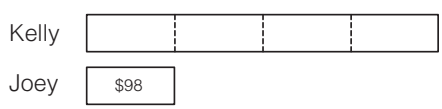
The piece of ribbon is **420 cm**.

6. The Before-After Concept

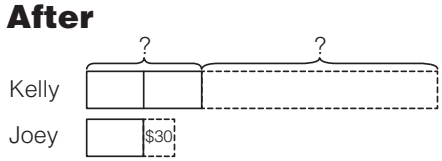
The *Before-After* concept lists all the relevant data before and after an event. Students can then compare the differences and eventually solve the problems. Usually, the Before-After concept and the mathematical model go hand in hand to solve math word problems. Note that the Before-After concept can be applied only to a certain type of math word problem, which trains students to think sequentially.

Example: Kelly has 4 times as much money as Joey. After Kelly uses some money to buy a tennis racquet, and Joey uses $30 to buy a pair of pants, Kelly has twice as much money as Joey. If Joey has $98 in the beginning,
(a) how much money does Kelly have in the end?
(b) how much money does Kelly spend on the tennis racquet?

Before



After



(a) $98 - $30 = $68
2 × $68 = $136
Kelly has **$136** in the end.
(b) 4 × $98 = $392
$392 – $136 = $256
Kelly spends **$256** on the tennis racquet.

7. Making Supposition

Making supposition is commonly known as "making an assumption." Students can use this strategy to solve certain types of math word problems. Making assumptions will eliminate some possibilities and simplifies the word problems by providing a boundary of values to work within.

Example: Mrs. Jackson bought 100 pieces of candy for all the students in her class. How many pieces of candy would each student receive if there were 25 students in her class?

In the above word problem, assume that each student received the same number of pieces. This eliminates the possibilities that some students would receive more than others due to good behavior, better results, or any other reason.

8. Representation of Problem

In problem solving, students often use representations in the solutions to show their understanding of the problems. Using representations also allow students to understand the mathematical concepts and relationships as well as to manipulate the information presented in the problems. Examples of representations are diagrams and lists or tables.

Diagrams allow students to consolidate or organize the information given in the problems. By drawing a diagram, students can see the problem clearly and solve it effectively.

A list or table can help students organize information that is useful for analysis. After analyzing, students can then see a pattern, which can be used to solve the problem.

9. Guess and Check

One of the most important and effective problem-solving techniques is *Guess and Check*. It is also known as *Trial and Error*. As the name suggests, students have to guess the answer to a problem and check if that guess is correct. If the guess is wrong, students will make another guess. This will continue until the guess is correct.

It is beneficial to keep a record of all the guesses and checks in a table. In addition, a *Comments* column can be included. This will enable students to analyze their guess (if it is too high or too low) and improve on the next guess. Be careful; this problem-solving technique can be tiresome without systematic or logical guesses.

Example: Jessica had 15 coins. Some of them were 10-cent coins and the rest were 5-cent coins. The total amount added up to $1.25. How many coins of each kind were there?

Use the guess-and-check method.

Number of 10¢ Coins	Value	Number of 5¢ Coins	Value	Total Number of Coins	Total Value
7	7 × 10¢ = 70¢	8	8 × 5¢ = 40¢	7 + 8 = 15	70¢ + 40¢ = 110¢ = $1.10
8	8 × 10¢ = 80¢	7	7 × 5¢ = 35¢	8 + 7 = 15	80¢ + 35¢ = 115¢ = $1.15
10	10 × 10¢ = 100¢	5	5 × 5¢ = 25¢	10 + 5 = 15	100¢ + 25¢ = 125¢ = $1.25

There were **ten** 10-cent coins and **five** 5-cent coins.

10. Restate the Problem

When solving challenging math problems, conventional methods may not be workable. Instead, restating the problem will enable students to see some challenging problems in a different light so that they can better understand them.

The strategy of restating the problem is to "say" the problem in a different and clearer way. However, students have to ensure that the main idea of the problem is not altered.

How do students restate a math problem?

First, read and understand the problem. Gather the given facts and unknowns. Note any condition(s) that have to be satisfied.

Next, restate the problem. Imagine narrating this problem to a friend. Present the given facts, unknown(s), and condition(s). Students may want to write the "revised" problem. Once the "revised" problem is analyzed, students should be able to think of an appropriate strategy to solve it.

11. Simplify the Problem

One of the commonly used strategies in mathematical problem solving is simplification of the problem. When a problem is simplified, it can be "broken down" into two or more smaller parts. Students can then solve the parts systematically to get to the final answer.

2A LEARNING OUTCOMES

Unit 1 Numbers 1-1,000
Students should be able to
- recognize and write numbers up to 1,000 in numerals and words.
- identify the place value of numbers up to 1,000.
- compare and arrange numbers up to 1,000.
- complete number patterns.

Unit 2 Adding and Subtracting Numbers 1-1,000
Students should be able to
- add and subtract numbers up to 1,000 by regrouping ones, tens, or hundreds.
- solve 1-step story problems related to addition and subtraction.

Review 1
This review tests students' understanding of Units 1 & 2.

Unit 3 Fun With Models (Adding and Subtracting)
Students should be able to
- draw models involving addition and subtraction of 2 numbers.
- draw models involving addition of 3 numbers.

Unit 4 Multiplying and Dividing
Students should be able to
- multiply numbers by 2, 3, 4, 5, and 10.
- divide numbers by 2, 3, 4, 5, and 10.

Review 2
This review tests students' understanding of Units 3 & 4.

Unit 5 Multiplying and Dividing Numbers by 2 and 3
Students should be able to
- multiply and divide numbers by 2 and 3.

Unit 6 Multiplying and Dividing Numbers by 4, 5, and 10
Students should be able to
- multiply numbers by 4, 5, and 10.
- divide numbers by 4, 5, and 10.
- solve 1-step multiplication and division story problems.

Unit 7 Fun With Models (Multiplying and Dividing)
Students should be able to
- draw models involving multiplication and division.

Review 3
This review tests students' understanding of Units 5, 6, & 7.

Unit 8 Length
Students should be able to
- measure objects in meters, centimeters, inches, feet, and yards.
- compare items of different lengths.
- add, subtract, multiply, and divide different lengths.
- solve 1-step story problems related to length.

Unit 9 Mass
Students should be able to
- measure items in kilograms, grams, ounces, and pounds.
- compare items of different masses.
- add, subtract, multiply, and divide different masses.
- solve 1-step story problems related to mass.

Review 4
This review tests students' understanding of Units 8 & 9.

Mid-Review
This review is an excellent assessment of students' understanding of all the topics in the first half of this book.

FORMULA SHEET

Unit 1 Numbers 1-1,000

Numbers can be written as words.
Example: 549 **five hundred and forty-nine**

Place value

The value of a digit is based on its place value in the number.
Examples: In 637,
the digit **7** is in the **ones** place,
the digit **3** is in the **tens** place, and
the digit **6** is in the **hundreds** place.

Comparing numbers

Use the place value starting with hundreds to compare 2 numbers.

- When one number is bigger than the other, use the words *greater than* to describe it.
- When one number is less than the other, use the words *smaller than* to describe it.

Order and Pattern

When arranging a set of numbers in order,

- determine if the series must begin with the largest or the smallest,
- compare the place value of the numbers,
- arrange the numbers in the correct order.

For number pattern problems,

- determine if the number pattern is in an increasing or a decreasing order,
- find the difference between 2 consecutive numbers,
- apply the difference to find the unknown number.

Unit 2 Adding and Subtracting Numbers 1-1,000

Adding without regrouping

- Add the digits in the ones place first.
- Add the digits in the tens place.
- Add the digits in the hundreds place.

Adding with regrouping

- Add the digits in the ones place first. Regroup the ones if there are more than 10 ones.
- Add the digits in the tens place. Add another ten if there is a regrouping of ones. Regroup the tens if there are more than 10 tens.
- Add the digits in the hundreds place. Add another hundred if there is a regrouping of tens.

Subtracting without regrouping

- Subtract the digits in the ones place first.
- Subtract the digits in the tens place.
- Subtract the digits in the hundreds place.

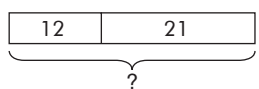
Subtracting with regrouping

- Subtract the digits in the ones place first. If this is not possible, regroup the tens and ones.
- Subtract the digits in the tens place. If this is not possible, regroup the hundreds and tens.
- Subtract the digits in the hundreds place.

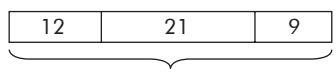
Unit 3 Fun With Models (Adding and Subtracting)

Models are pictorial representations of mathematical problems. Models make the problems easier to understand and solve.

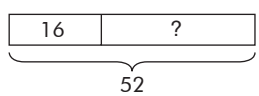
The following is an example of a model involving simple addition.



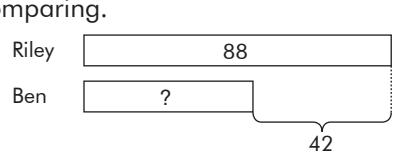
The following is an example of a model involving addition of 3 items.



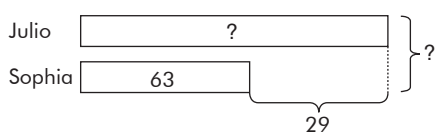
The following is an example of a model involving simple subtraction.



The following is an example of a model involving comparing.



The following is an example of a model in a 2-part story problem.



Unit 4 Multiplying and Dividing

Multiplication is also known as repeated addition.
Keywords: *times*, *multiply*, or *product*
For example, $4 \times 5 = 4 + 4 + 4 + 4 + 4$

4	×	5	=	20
(number)		(number of times)		(result)

Division is the opposite of multiplication.

Keywords: *equal*, *equally*, or *divide*

The ÷ sign is used to represent division in a number sentence.

Examples: $20 \div 4 = 5$ or $20 \div 5 = 4$

Unit 5 Multiplying and Dividing Numbers by 2 and 3

Below are the multiplication tables of 2 and 3.

×	2	3
1	2	3
2	4	6
3	6	9
4	8	12
5	10	15
6	12	18
7	14	21
8	16	24
9	18	27
10	20	30
11	22	33
12	24	36

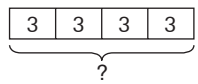
Unit 6 Multiplying and Dividing Numbers by 4, 5, and 10

Below are the multiplication tables of 4, 5, and 10.

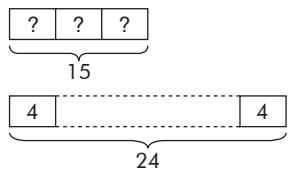
×	4	5	10
1	4	5	10
2	8	10	20
3	12	15	30
4	16	20	40
5	20	25	50
6	24	30	60
7	28	35	70
8	32	40	80
9	36	45	90
10	40	50	100
11	44	55	110
12	48	60	120

Unit 7 Fun With Models (Multiplying and Dividing)

The following is an example of a model involving simple multiplication.



The following are examples of a model involving simple division.



Unit 8 Length

Length is how long an object is.
Height is how tall an object is.

Units of measurement are meters (m), centimeters (cm), inches (in.), feet (ft.), and yards (yd.).

When measuring the length of an object with a ruler, always place the object starting at the 0 on the ruler. If the starting point of the object is not at 0, subtract the markings on both ends of the object to find the actual length of the object.

4 operations of length

When adding, subtracting, multiplying, and dividing lengths, make sure that they are in the same unit of measurement.

Unit 9 Mass

Mass is how heavy an object is.

Units of measurement are kilograms (kg), grams (g), ounces (oz.), and pounds (lb.).

Comparing the mass of 2 objects

When 2 objects have the same mass, use the words *as heavy as*.
When the mass of one object is heavier than that of the other object, use the words *more than*.
When the mass of one object is lighter than that of the other object, use the words *less than*.

Reading the mass of an object using a scale

When the object is placed on a scale, the needle will move and point to a number. That number is the mass of the object. Note the unit of measurement on the scale.

4 operations of mass

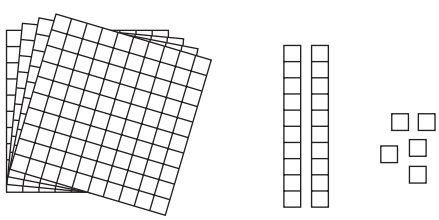
When adding, subtracting, multiplying, and dividing masses, make sure that they are in the same unit of measurement.

Unit 1: NUMBERS 1–1,000

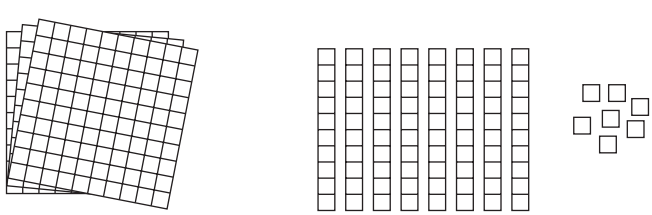
Examples:

1. Write 909 in words. — nine hundred and nine
2. In 285, which digit is in the tens place? — 8
3. In 704, in which place is the digit 4? — ones
4. Fill in the blank with *greater* or *smaller*.
   530 is _____ than 503. — greater
5. 50 less than 955 is _____. — 905
6. Fill in the missing numbers in the number pattern.
   410, 430, _____, _____, 490, 510 — 450, 470

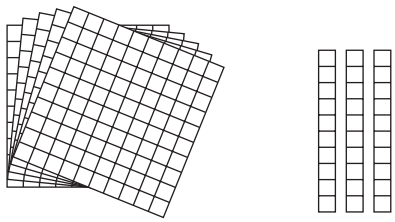
Count the squares, and write the correct numbers on the lines.

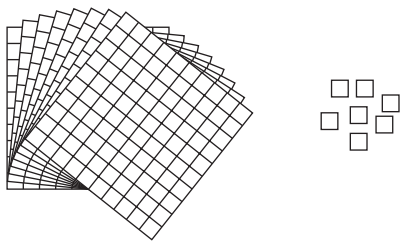
1. 

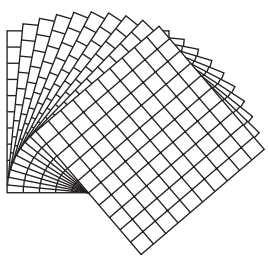
   _____

2. 

   _____

3.  _____

4.  _____

5.  _____

Write the following numbers as words on the lines.

6. 760 _____

7. 378 _____

8. 456 _____

9. 202 _____

10. 1,000 _____

Write the numbers on the lines.

11. five hundred and sixty-two _____

12. seven hundred and seventy-nine _____

13. one hundred and ten _____

14. three hundred and fifty-eight _____

15. nine hundred and seven _____

Fill in each blank with the correct answer.

16. 825 = _____ hundreds _____ tens _____ ones

17. 630 = _____ hundreds _____ tens _____ ones

18. 705 = _____ hundreds _____ tens _____ ones

19. 459 = _____ hundreds _____ tens _____ ones

20. 1,000 = _____ hundreds _____ tens _____ ones

21. In 671, the digit 7 is in the _____ place.

22. In 415, the digit 4 is in the _____ place.

23. In 567, the digit 5 is in the _____ place.

24. In 928, the digit _____ is in the hundreds place.

25. In 873, the digit _____ is in the ones place.

26. In 609, the digit _____ is in the tens place.

Fill in each blank with *smaller* or *greater*.

27. 400 is _____ than 40.

28. 926 is _____ than 962.

29. 370 is _____ than 730.

30. 805 is _____ than 580.

31. 235 is _____ than 352.

Arrange these numbers in order. Begin with the smallest.

32. 397 379 973 937

33. 192 129 319 219

34. 715 571 751 511

35. 163 116 316 313

36. 404 434 443 344

Arrange these numbers in order. Begin with the largest.

37. 570 705 507 750

38. 314 413 134 341

39. 289 960 187 517 608

_____

40. 320 190 857 220 456

_____

41. 927 279 727 970 290

_____

Fill in each blank with the correct answer.

42. 10 more than 560 is _____.

43. 20 less than 680 is _____.

44. _____ is 100 more than 778.

45. _____ is 200 less than 695.

46. _____ is 5 less than 279.

Complete the number patterns.

47. 280, 290, _____, _____, 320

48. 970, 870, 770, _____, _____

49. 760, _____, 800, 820, _____

50. 430, 460, _____, _____, 550

51. _____, _____, 650, 750, 850

Unit 2: ADDING AND SUBTRACTING NUMBERS 1–1,000

Examples:

1.
$$\begin{array}{r} 316 \\ +\ 121 \\ \hline \mathbf{437} \end{array}$$

2.
$$\begin{array}{r} 625 \\ -\ 313 \\ \hline \mathbf{312} \end{array}$$

3.
$$\begin{array}{r} {\scriptstyle 1\ \ 1\ \ \ } \\ 483 \\ +\ 398 \\ \hline \mathbf{881} \end{array}$$

4.
$$\begin{array}{r} {\scriptstyle 6\ \ 9\ \ 10} \\ 700 \\ -\ 293 \\ \hline \mathbf{407} \end{array}$$

Solve the addition problems below.

1.
$$\begin{array}{r} 143 \\ +\ 214 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 312 \\ +\ 481 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 732 \\ +\ 145 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 201 \\ +\ 283 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 821 \\ +\ 163 \\ \hline \end{array}$$

Solve the subtraction problems below.

6.
$$\begin{array}{r} 569 \\ -\ 234 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 932 \\ -\ 121 \\ \hline \end{array}$$

8. 736 − 204

9. 375 − 152

10. 859 − 607

Solve the following addition problems by regrouping.

11. 135 + 109

12. 505 + 295

13. 737 + 129

14. 256 + 380

15. 462 + 208

16. 397 + 546

Solve the following subtraction problems by regrouping.

17. 353 − 174

18. 971 − 369

19. 400 − 205

20. 632 − 171

21. 412 − 124

22. 500 − 178

23.
$$\begin{array}{r} 800 \\ -\ 280 \\ \hline \end{array}$$

24.
$$\begin{array}{r} 980 \\ -\ 555 \\ \hline \end{array}$$

25. Match each balloon to the correct tag.

- 592 – 368
- 446 + 369
- 1,000 – 468
- 319 + 680
- 856 – 159

Fill in each empty box with a +, – or = sign.

26.

73		42		115
70		30		40
3		72		75

27.

231		124		355
115		96		19
116		220		336

Solve the following story problems. Show your work in the space below.

28. Lena collects 389 stickers. Anne collects 317 more stickers than Lena. How many stickers does Anne collect?

Anne collects _____ stickers.

29. Tom has 416 bottle caps. John has 29 bottle caps fewer than Tom. How many bottle caps does John have?

John has _____ bottle caps.

30. Mr. Abdul sold 586 roses on Monday. He sold 237 roses on Tuesday. How many roses did he sell altogether?

He sold _____ roses altogether.

31. There were 416 visitors to a museum on Saturday. There were 555 visitors to the museum on Sunday. How many visitors were at the museum on both days?

_____ visitors were at the museum on both days.

32. Marcus and Jack spent $837 at a computer fair. If Jack spent $469, how much did Marcus spend?

Marcus spent $_____.

REVIEW 1

Write the following numbers as words on the lines.

1. 375 _____

2. 919 _____

Write the numbers on the lines.

3. two hundred and twelve _____

4. three hundred and three _____

5. Arrange these numbers in order. Begin with the largest.

313	420	179	402	917

_____, _____, _____, _____, _____

6. Arrange these numbers in order. Begin with the smallest.

812	128	182	281	218

_____, _____, _____, _____, _____

Fill in each blank with the correct answer.

7. 10 more than 360 is _____.

8. 50 less than 876 is _____.

9. 536, _____, 496, 476, _____

Solve the problems below. Show your work.

10. $\begin{array}{r} 608 \\ +\ 129 \\ \hline \end{array}$

11. $\begin{array}{r} 576 \\ +\ 188 \\ \hline \end{array}$

12. $\begin{array}{r} 154 \\ +\ 365 \\ \hline \end{array}$

13. $\begin{array}{r} 312 \\ +\ 498 \\ \hline \end{array}$

14. $\begin{array}{r} 700 \\ -\ 435 \\ \hline \end{array}$

15. $\begin{array}{r} 328 \\ -\ 109 \\ \hline \end{array}$

16. $\begin{array}{r} 860 \\ -\ 389 \\ \hline \end{array}$

17. $\begin{array}{r} 542 \\ -\ 379 \\ \hline \end{array}$

Solve the following story problems. Show your work in the space below.

18. The table below shows the number of people who went to the zoo on 3 different days.

Monday	Tuesday	Wednesday
379	686	575

(a) How many more people went to the zoo on Wednesday than on Monday?

_____ more people went to the zoo on Wednesday than on Monday.

(b) How many fewer people went to the zoo on Monday than on Tuesday?

_____ fewer people went to the zoo on Monday than on Tuesday.

19. Aaron has collected 494 stamps. He wants to collect 1,000 stamps. How many more stamps does Aaron need to collect?

Aaron needs to collect _____ more stamps.

20. Jazmin sold 360 flowers on Friday. She sold 265 flowers on Saturday. How many flowers did Jazmin sell on both days?

Jazmin sold _____ flowers on both days.

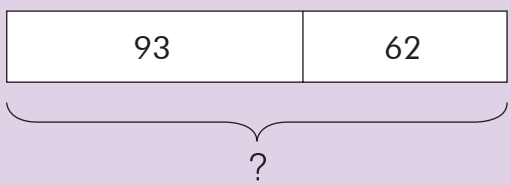
Unit 3: FUN WITH MODELS (ADDING AND SUBTRACTING)

Examples:

1. James has 93 postcards.

   Anya has 62 postcards.

   How many postcards do they have altogether?



$$93 + 62 = 155$$

They have **155** postcards altogether.

2. Aunt Lily had $59.

   She spent $17 on a book.

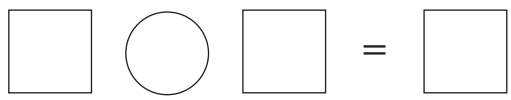
   How much did she have left?

$$\$59 - \$17 = \$42$$

She had **$42** left.

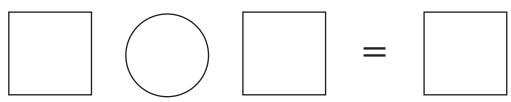
Draw the models, and solve the following story problems.

1. Danny has 576 bookmarks. Emilio has 186 bookmarks. How many bookmarks do they have altogether?



They have _____ bookmarks altogether.

2. Eddy has 280 chickens. He sells 168 chickens. How many chickens does he have left?

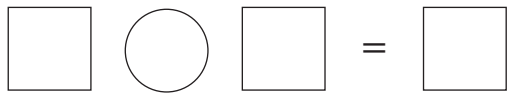


He has _____ chickens left.

3. A shopkeeper sold 360 oranges on Monday. He sold 275 oranges on Tuesday and another 150 oranges on Wednesday. How many oranges did he sell altogether?

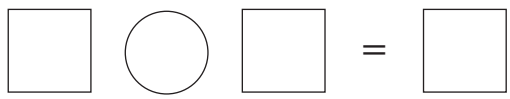
He sold _____ oranges altogether.

4. Samantha had 96 seashells. She gave some to her best friend. She had 78 seashells left. How many did she give to her best friend?



She gave _____ seashells to her best friend.

5. Andy received 131 stamps from his father. His sister gave him 280 stamps. How many stamps did he have altogether?

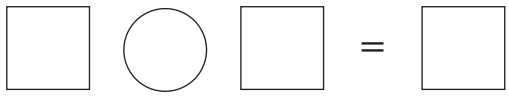


He had _____ stamps altogether.

6. There are 216 chickens, 137 ducks, and 97 rabbits on a farm. How many animals are there on the farm?

There are _____ animals on the farm.

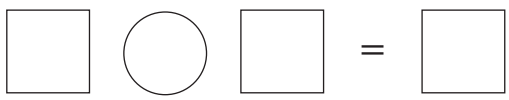
7. Malik had 720 trading cards. He gave some to his brother. He had 465 trading cards left. How many trading cards did he give to his brother?



He gave _____ trading cards to his brother.

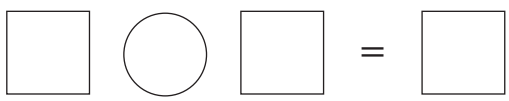
8. Hitomi saves $310. Her brother saves $280 more than Hitomi.

(a) How much does her brother save?



Her brother saves $_____.

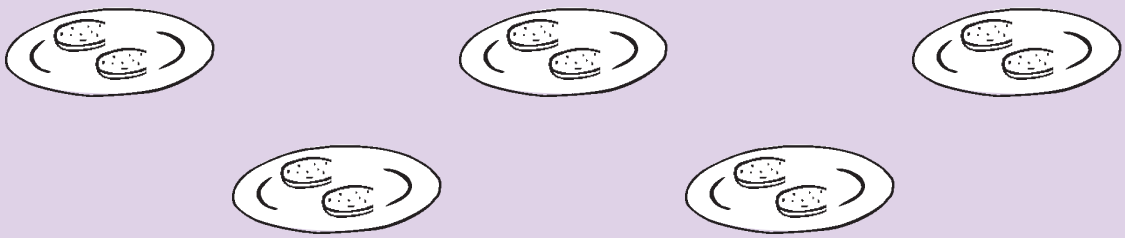
(b) How much do they save altogether?



They save $_____ altogether.

Unit 4: MULTIPLYING AND DIVIDING

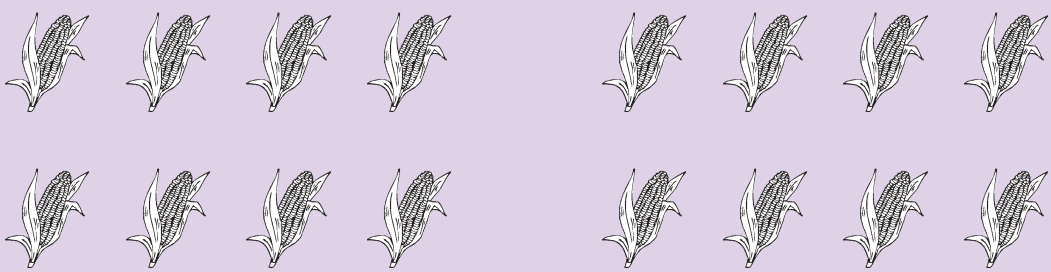
Examples:

1. 

There are 5 plates on a table.
There are 2 crackers on each plate.
How many crackers are there altogether?

$$5 \times 2 = 10$$

There are <u>10</u> crackers altogether.

2. 

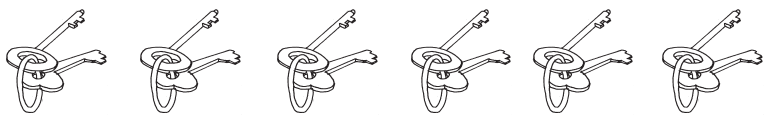
Natalie bought 16 ears of sweet corn.
She put an equal number of ears of corn into 4 bags.
How many ears of corn are there in each bag?

$$16 \div 4 = 4$$

There are <u>**4**</u> ears of sweet corn in each bag.

Look at the pictures carefully, and fill in each blank with the correct answer.

1.



6 twos = _____

6 × 2 = _____

2.

5 fours = _____

5 × 4 = _____

3.

7 threes = _____

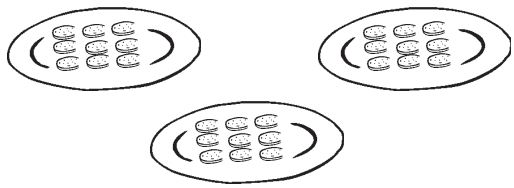
7 × 3 = _____

4.

5 fives = _____

5 × 5 = _____

5.

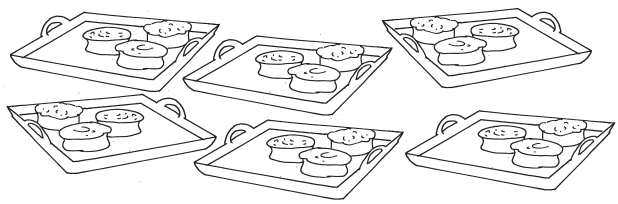


3 nines = _____

3 × 9 = _____

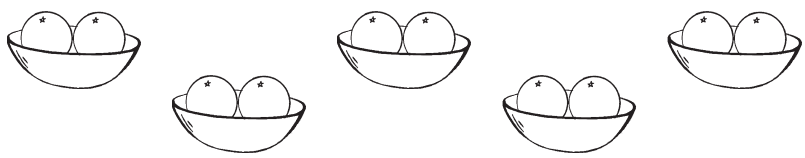
Study the pictures below. Fill in each blank with the correct answer.

6.



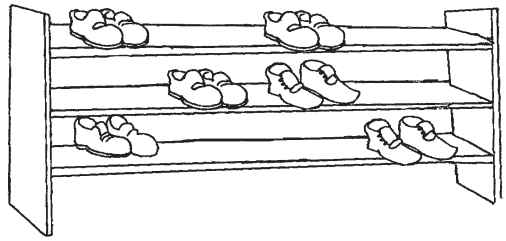
_____ + _____ + _____ + _____ + _____ + _____ = _____

7.



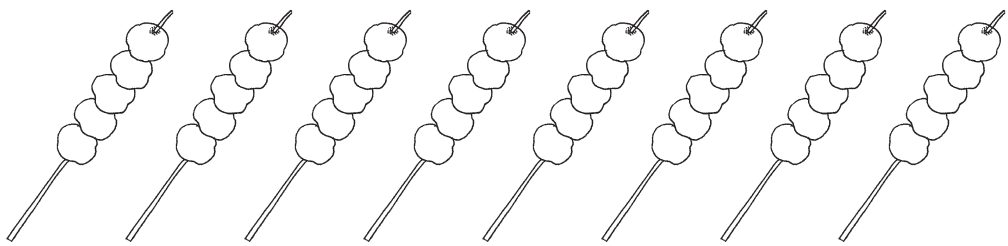
_____ + _____ + _____ + _____ + _____ = _____

8.



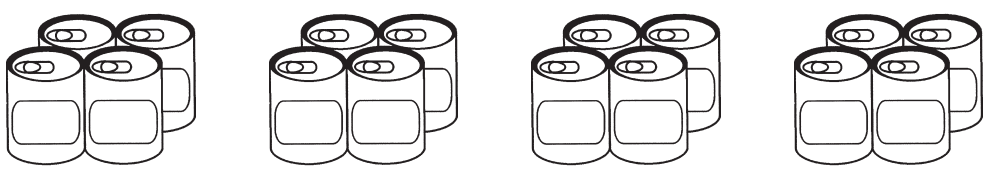
_____ + _____ + _____ = _____

9.



____ + ____ + ____ + ____ + ____ + ____ + ____ + ____ = _____

10.



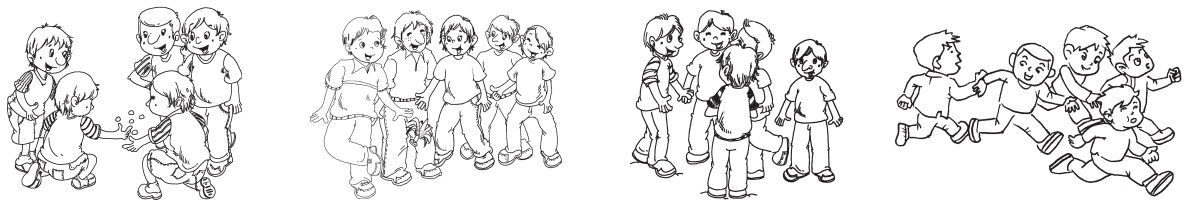
_____ + _____ + _____ + _____ = _____

Look at the pictures carefully, and fill in each blank with the correct answer.

11.

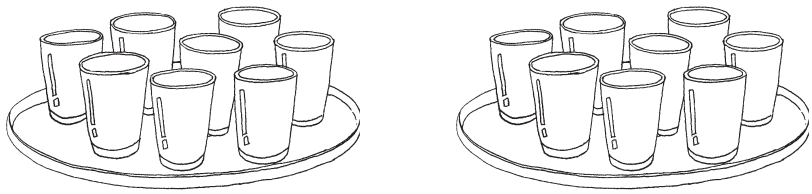
7 × _____ = _____

12.



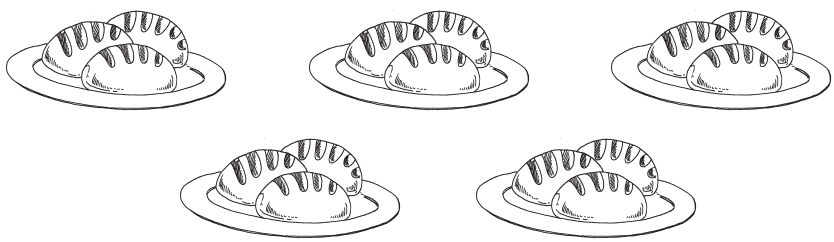
_____ × 5 = _____

13.



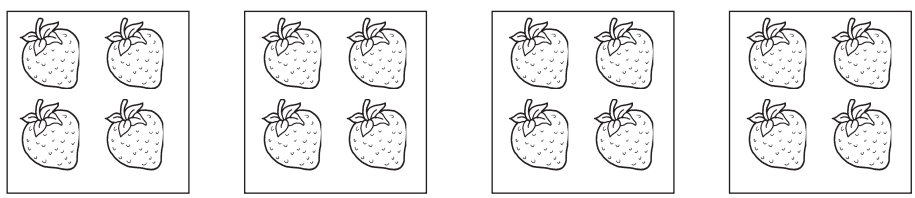
2 × _____ = _____

14.



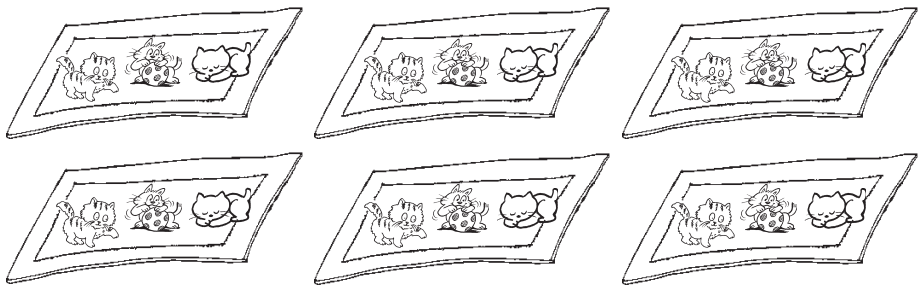
5 × _____ = _____

15.



_____ × 4 = _____

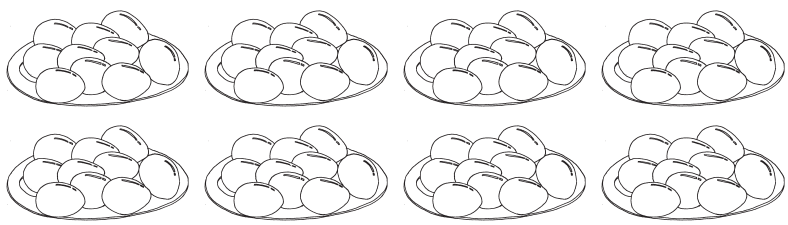
16. There are 3 kittens on each mat.



_____ × _____ = _____

There are _____ kittens altogether.

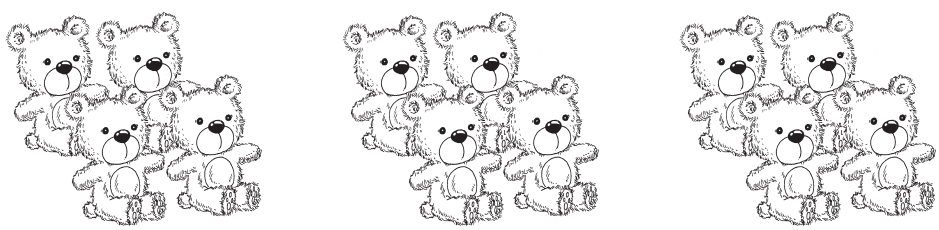
17. There are 10 eggs on each tray.



_____ × _____ = _____

There are _____ eggs altogether.

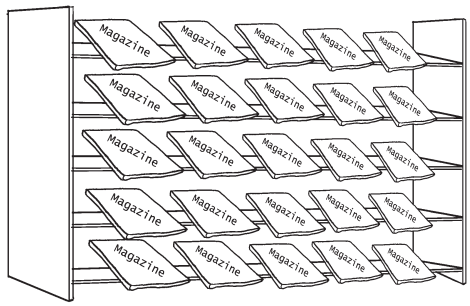
18. There are 4 teddy bears in each group.



_____ × _____ = _____

There are _____ teddy bears altogether.

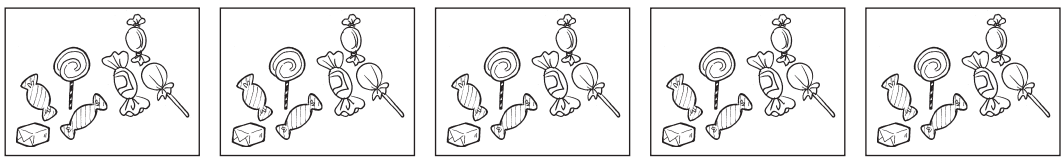
19. There are 5 magazines on each shelf.



_____ × _____ = _____

There are _____ magazines altogether.

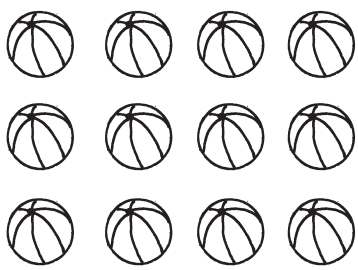
20. There are 7 pieces of candy in each box.



_____ × _____ = _____

There are _____ pieces of candy altogether.

21. Divide 12 balls into 3 equal groups.



12 ÷ _____ = _____

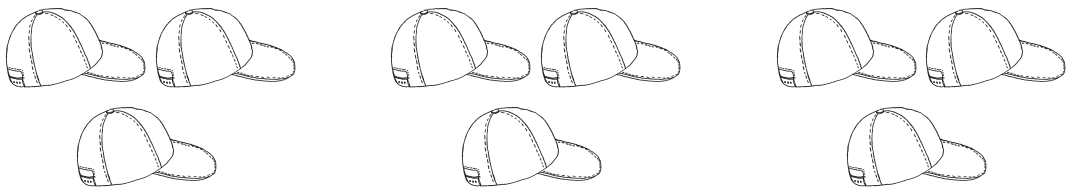
There are _____ balls in each group.

22. Divide 20 bottle caps into 2 equal groups.

20 ÷ _____ = _____

There are _____ bottle caps in each group.

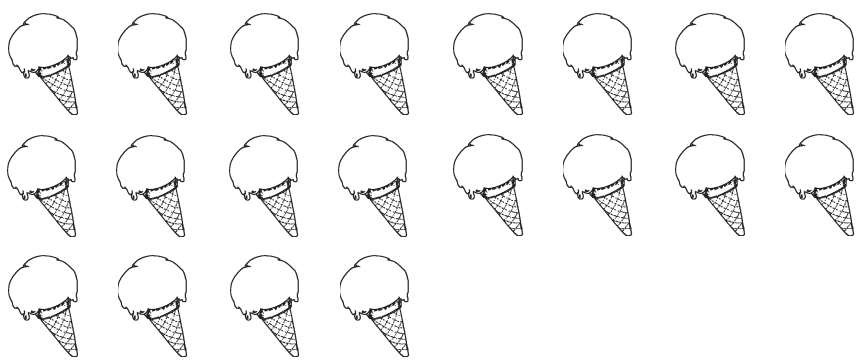
23. Divide 9 hats into groups of 3.



9 ÷ _____ = _____

There are _____ groups of hats.

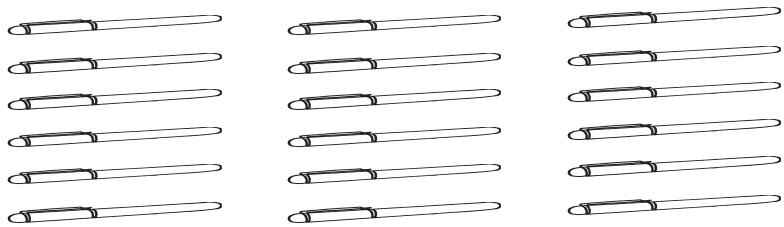
24. Divide 20 ice-cream cones into groups of 4.



20 ÷ _____ = _____

There are _____ groups of ice-cream cones.

25. Divide 18 pens into groups of 3.

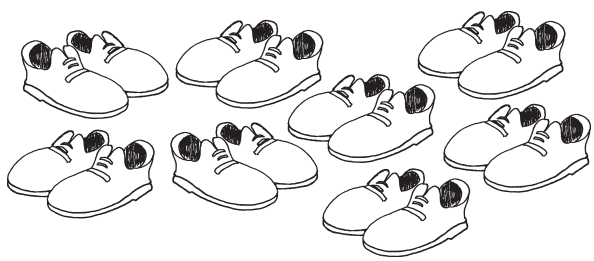


18 ÷ _____ = _____

There are _____ groups of pens.

Write 2 multiplication and division sentences for each set of pictures.

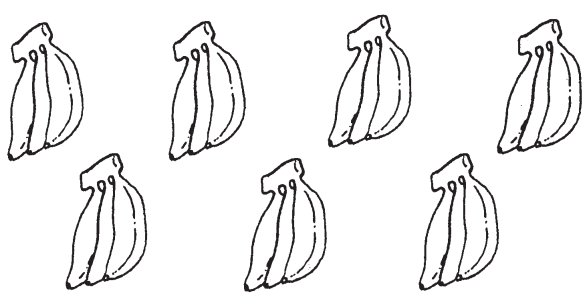
26.



_____ × _____ = _____ _____ × _____ = _____

_____ ÷ _____ = _____ _____ ÷ _____ = _____

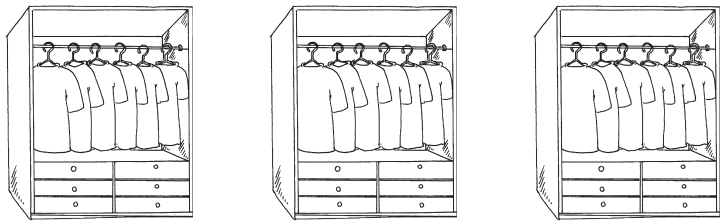
27.



_____ × _____ = _____ _____ × _____ = _____

_____ ÷ _____ = _____ _____ ÷ _____ = _____

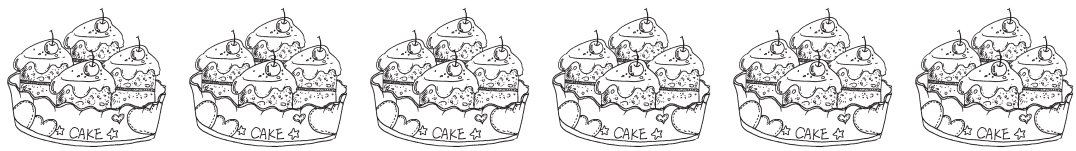
28.



_____ × _____ = _____ _____ × _____ = _____

_____ ÷ _____ = _____ _____ ÷ _____ = _____

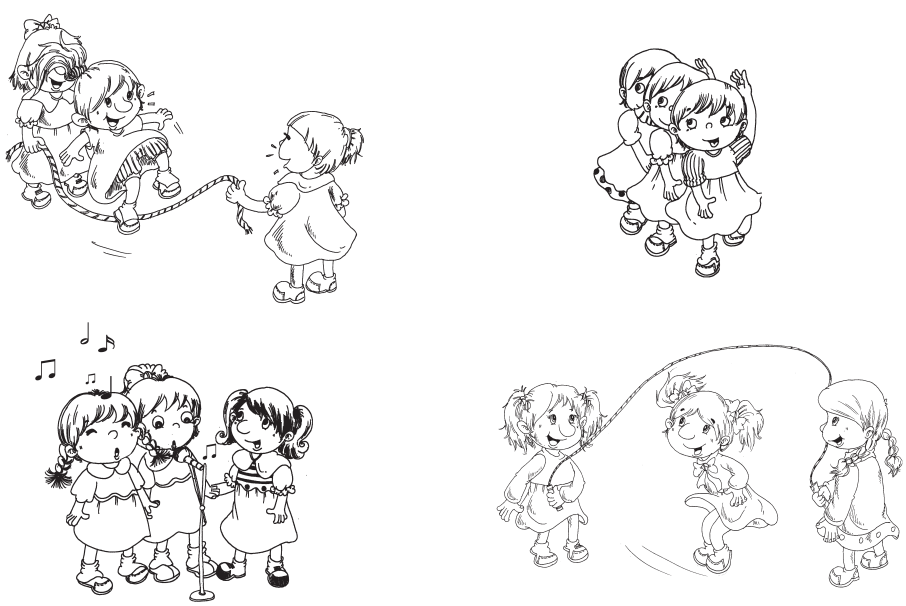
29.



_____ × _____ = _____ _____ × _____ = _____

_____ ÷ _____ = _____ _____ ÷ _____ = _____

30.



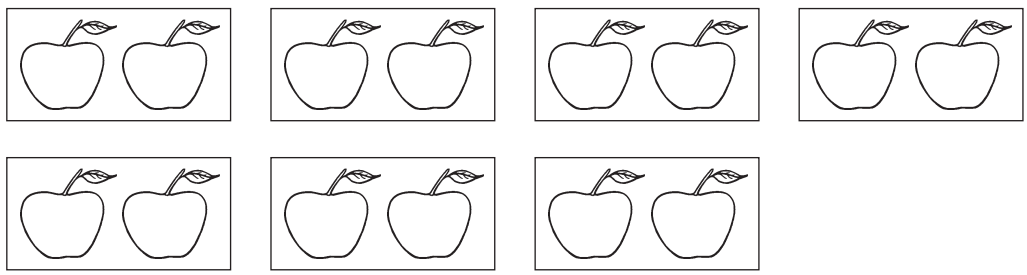
_____ × _____ = _____ _____ × _____ = _____

_____ ÷ _____ = _____ _____ ÷ _____ = _____

REVIEW 2

Look at the pictures carefully, and fill in each blank with the correct answer.

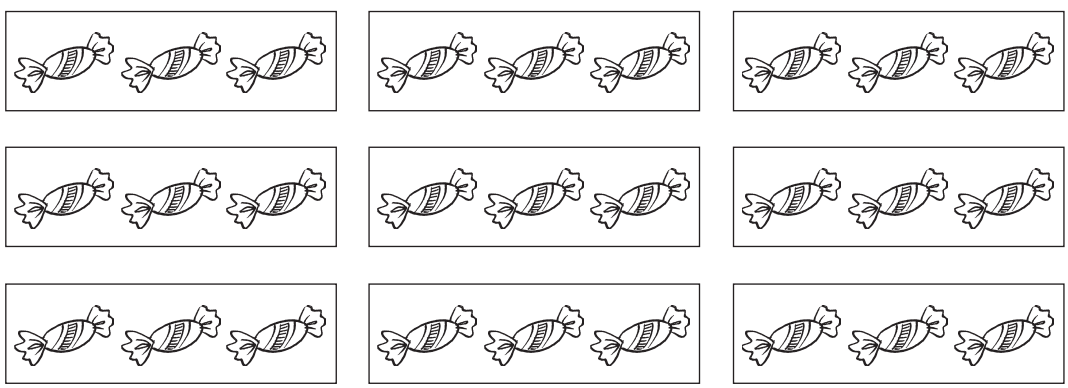
1.



7 twos = _____

7 × 2 = _____

2.

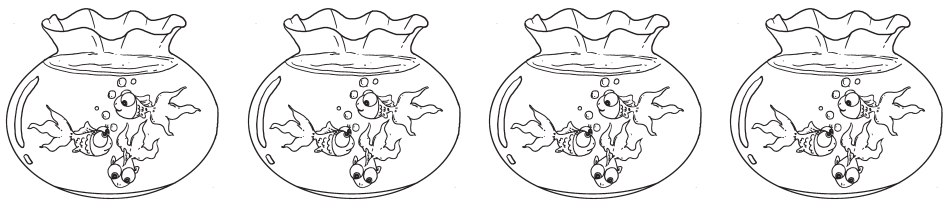


_____ + _____ + _____ + _____ + _____ +

_____ + _____ + _____ + _____ = _____

Write 2 multiplication and division sentences for each set of pictures.

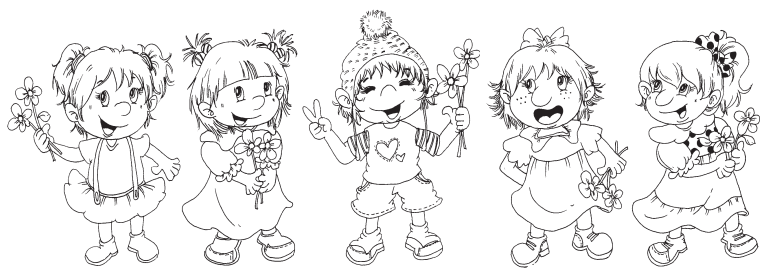
3.



_____ × _____ = _____ _____ × _____ = _____

_____ ÷ _____ = _____ _____ ÷ _____ = _____

4.

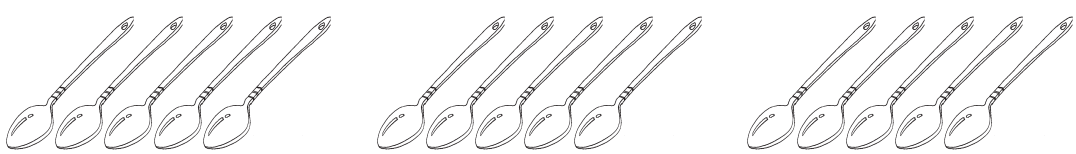


_____ × _____ = _____ _____ × _____ = _____

_____ ÷ _____ = _____ _____ ÷ _____ = _____

Study the pictures carefully, and fill in each blank with the correct answer.

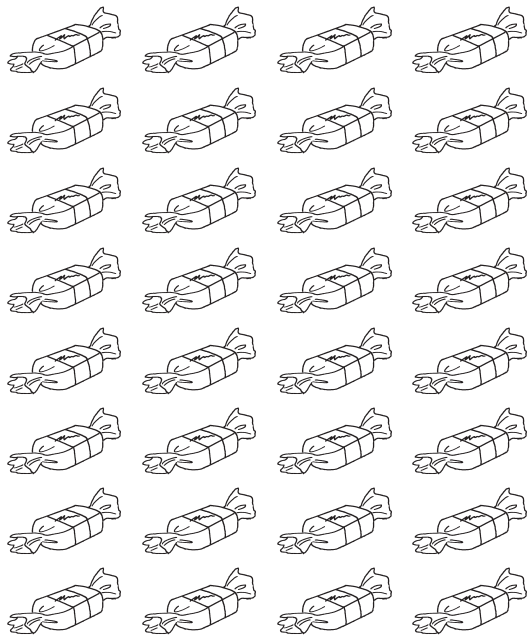
5. Divide 15 spoons into 3 equal groups.



15 ÷ _____ = _____

There are _____ spoons in each group.

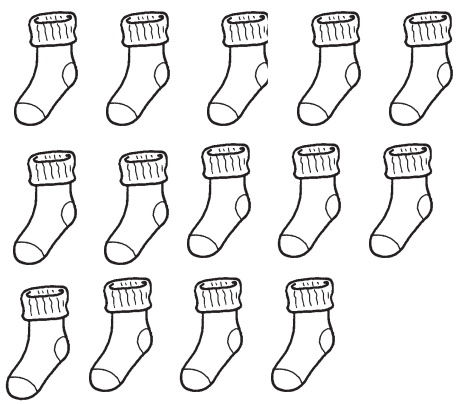
6. Divide 32 pieces of candy into groups of 4.



32 ÷ _____ = _____

There are _____ groups of candy.

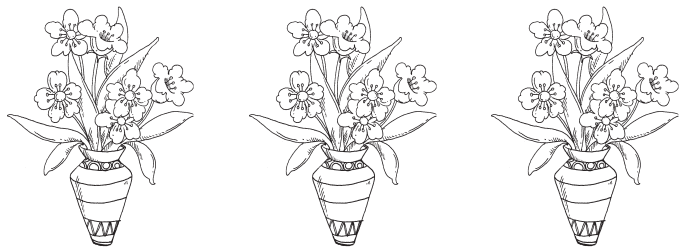
7. Divide 14 socks into 2 equal groups.



14 ÷ _____ = _____

There are _____ socks in each group.

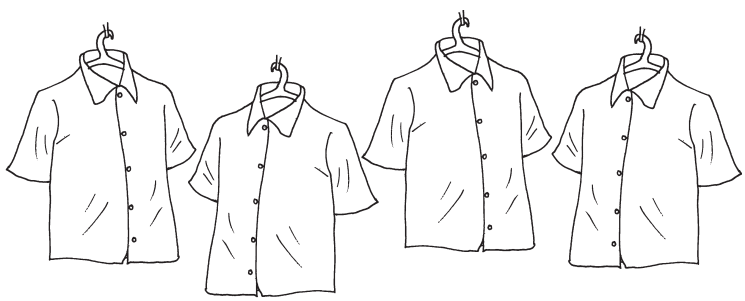
8. There are 6 flowers in each vase.



_____ × _____ = _____

There are _____ flowers altogether.

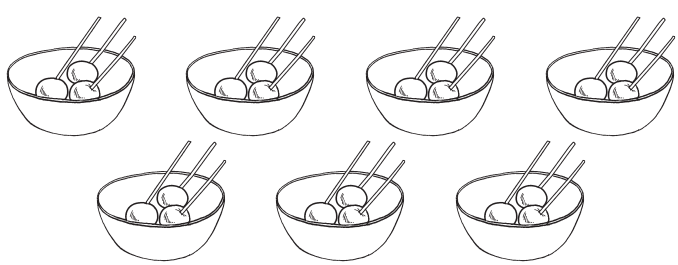
9. There are 5 buttons on each shirt.



_____ × _____ = _____

There are _____ buttons altogether.

10. There are 3 lollipops in each bowl.



_____ × _____ = _____

There are _____ lollipops altogether.

Draw the models, and solve the following story problems.

11. Abby has 796 stickers in her collection. Her sister gives her another 159 stickers. How many stickers does Abby have?

Abby has _____ stickers.

12. Jaya has 187 oranges. She uses 93 oranges to make some juice for a party. How many oranges does she have left?

She has _____ oranges left.

13. Benjamin scored 96 on his English test. He scored 82 on his math test. What was his combined score for both tests?

He scored _____ on both tests combined.

14. (a) Mrs. Anderson baked 455 cookies at her bakery on Saturday. She baked 380 cookies on Sunday. How many cookies did she bake during the weekend?

She baked _____ cookies during the weekend.

(b) She gave 172 cookies to her son's school. How many cookies did she have left?

She had _____ cookies left.

15. Katrina has 496 books. Isabel has 388 books. How many books do they have in all?

They have _____ books in all.

16. Cameron spent $285 on a trip to Florida. Antonio spent $62 less than Cameron. How much did Antonio spend?

Antonio spent $_____.

17. Dmitri has 9 marbles. Adrian has 8 marbles. Zackary has 6 marbles. How many marbles do the 3 boys have altogether?

The 3 boys have _____ marbles altogether.

18. Mr. Simon had 245 oranges and 379 apples. 188 pieces of fruit were rotten. How many pieces of fruit did Mr. Simon have left?

Mr. Simon had _____ pieces of fruit left.

19. Kaylee spent $503 in June. She spent $128 less in June than in July. How much did she spend in July?

She spent $_____ in July.

20. 586 visitors went to the zoo in November. 253 fewer visitors went to the zoo in December. How many visitors went to the zoo in these 2 months?

_____ visitors went to the zoo in these 2 months.

Unit 5: MULTIPLYING AND DIVIDING NUMBERS BY 2 AND 3

Examples:

1. Rick has 3 notebooks.
   There are 10 pages in each notebook.
   How many pages are there in all?

   $3 \times 10 = 30$

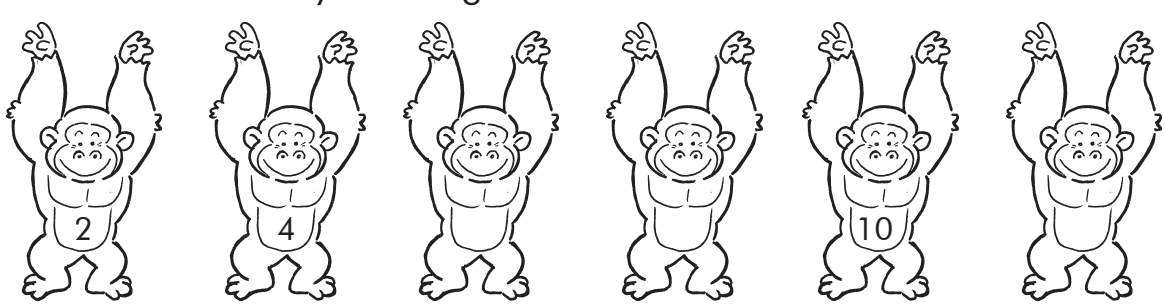
   There are **30** pages in all.

2. Mrs. Mendoza has 18 carrots.
   She gives each rabbit 2 carrots.
   How many rabbits does she give all her carrots to?

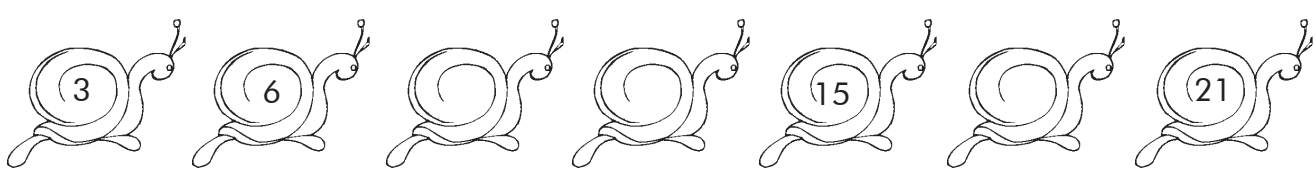
   $18 \div 2 = 9$

   She gives all her carrots to **9** rabbits.

1. Fill in each blank by counting in twos.



2. Fill in each blank by counting in threes.



Fill in each blank with the correct answer.

3. $4 \times 2 =$ _____

4. $6 \times 2 =$ _____

5. $5 \times 3 =$ _____

6. $8 \times 2 =$ _____

7. $9 \times 3 =$ _____

8. $3 \times 3 =$ _____

9. $7 \times 3 =$ _____

10. $9 \times 2 =$ _____

11. $6 \times 3 =$ _____

12. $5 \times 2 =$ _____

Fill in each blank with the correct answer.

13. _____ $\times 2 = 20$

14. _____ $\times 3 = 15$

15. $2 \times$ _____ $= 12$

16. $3 \times$ _____ $= 9$

17. $3 \times$ _____ $= 18$

18. $3 \times$ _____ $= 27$

19. $2 \times$ _____ $= 10$

20. _____ $\times 3 = 12$

21. _____ $\times 2 = 16$

22. _____ $\times 2 = 18$

Fill in each blank with the correct answer.

23. $30 \div 3 =$ _____

24. $21 \div 3 =$ _____

25. $16 \div 2 =$ _____

26. $18 \div 3 =$ _____

27. $14 \div 2 =$ _____

28. $8 \div 2 =$ _____

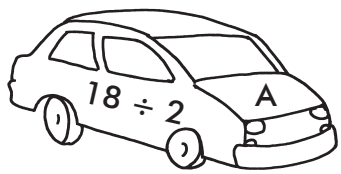
29. $12 \div 2 =$ _____

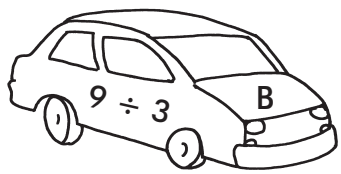
30. $15 \div 3 =$ _____

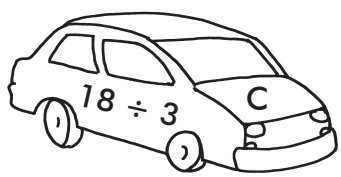
31. $10 \div 2 =$ _____

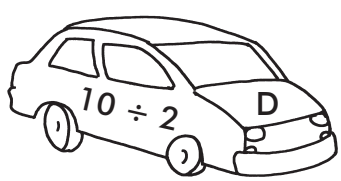
32. $24 \div 3 =$ _____

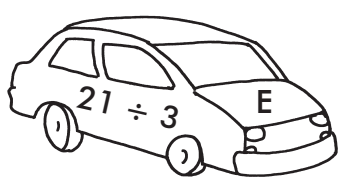
33. Match each car to the correct owner.











Mr. Jones

Mr. Thomas

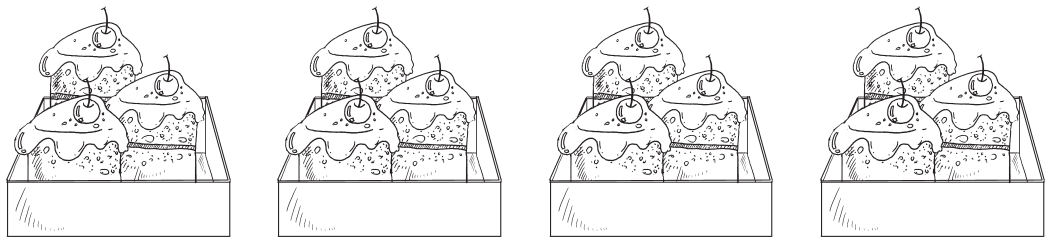
Mr. Schneider

Mr. Hahn

Mr. Wolski

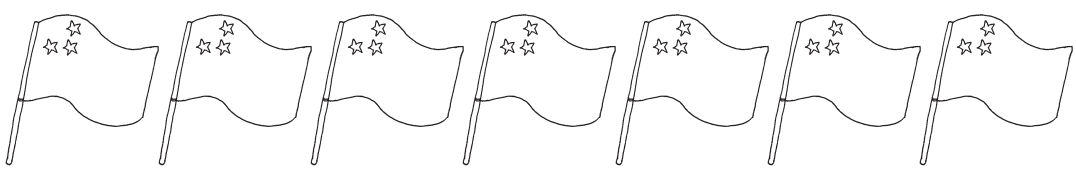
Solve the following story problems. Show your work in the space below.

34. Taylor bought 4 boxes of cake. There were 3 pieces of cake in each box. How many pieces of cake were there altogether?



There were _____ pieces of cake altogether.

35. There are 3 stars on a flag. There are 7 flags. How many stars are there altogether?



There are _____ stars altogether.

36. Each tricycle has 3 wheels. There are 15 wheels altogether. How many tricycles are there?

There are _____ tricycles.

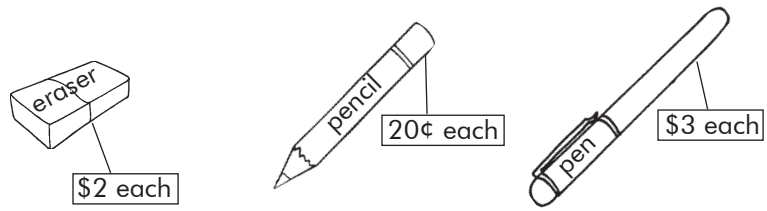
37. Eliza baked 14 muffins. She gave 2 muffins to each of her friends. How many friends did she give the muffins to?

She gave the muffins to _____ friends.

38. Minh packs 3 tennis balls into each bag. If there are 27 tennis balls, how many bags will she need?

She will need _____ bags.

39. The picture below shows several items sold at a drugstore.



(a) Jane buys 4 erasers. How much does she pay in all?

$_____

(b) Luke has $12. How many pens can he buy?

_____ pens

(c) Ken buys 3 pens. How much does he pay altogether?

$_____

(d) Jade has $16. How many erasers can she buy?

_____ erasers

(e) There are 4 students in a group. If Mrs. Moran gives 3 pencils to each student, how many pencils does she need to buy?

_____ pencils

40. Complete the crossword puzzle with the correct answers.

12	÷		=	6
÷				×
	÷		=	
=				=
	×	9	=	18

Unit 6: MULTIPLYING AND DIVIDING NUMBERS BY 4, 5, AND 10

Examples:

1. There are 10 SUVs in a parking lot.
   Each SUV has 4 wheels.
   How many wheels are there altogether?

   $10 \times 4 = 40$

   There are **40** wheels altogether.

2. Uncle Ron works 5 days each week.
   How many days does he work in 8 weeks?

   $8 \times 5 = 40$

   He works **40** days in 8 weeks.

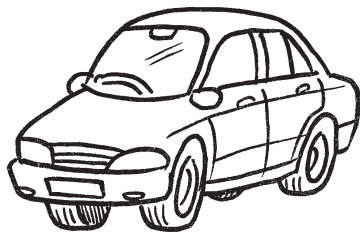
3. There are 80 pens.
   Andre ties 10 pens in each bundle.
   How many bundles of pens does Andre tie?

   $80 \div 10 = 8$

   Andre ties **8** bundles of pens.

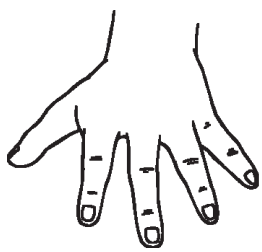
Complete the following tables.

1. Each car has 4 wheels.



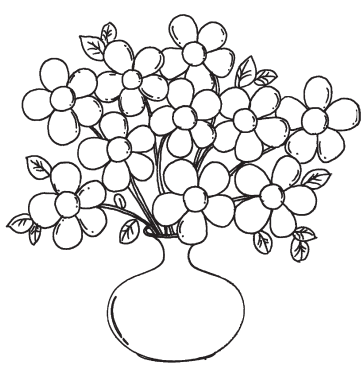
Number of cars	1	2	4		9
Number of wheels	4	8		28	

2. Each hand has 5 fingers.



Number of hands	2		6		10
Number of fingers	10	20		45	

3. Each vase has 10 flowers.



Number of vases	3		7	8	
Number of flowers	30	50			100

Fill in each blank with the correct answer.

4. $6 \times 4 =$ _____

5. $3 \times 5 =$ _____

6. $6 \times 5 =$ _____

7. $9 \times 5 =$ _____

8. $3 \times 10 =$ _____

9. $8 \times 10 =$ _____

10. $9 \times 4 =$ _____

11. $7 \times 10 =$ _____

12. $2 \times 4 =$ _____

13. $7 \times 5 =$ _____

Fill in each blank with the correct answer.

14. $30 \div 5 =$ _____

15. $20 \div 10 =$ _____

16. $16 \div 4 =$ _____

17. $40 \div 5 =$ _____

18. $24 \div 4 =$ _____

19. $90 \div 10 =$ _____

20. $12 \div 4 =$ _____

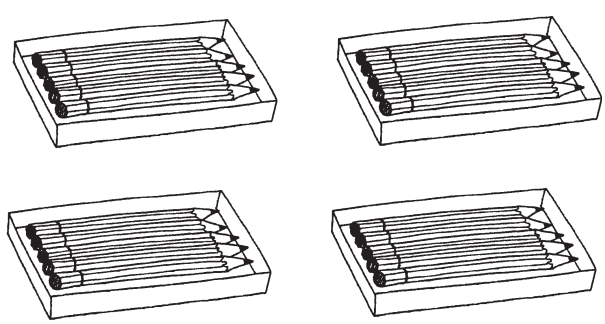
21. $100 \div 10 =$ _____

22. $10 \div 5 =$ _____

23. $40 \div 10 =$ _____

Write 2 multiplication and division sentences for each set of pictures.

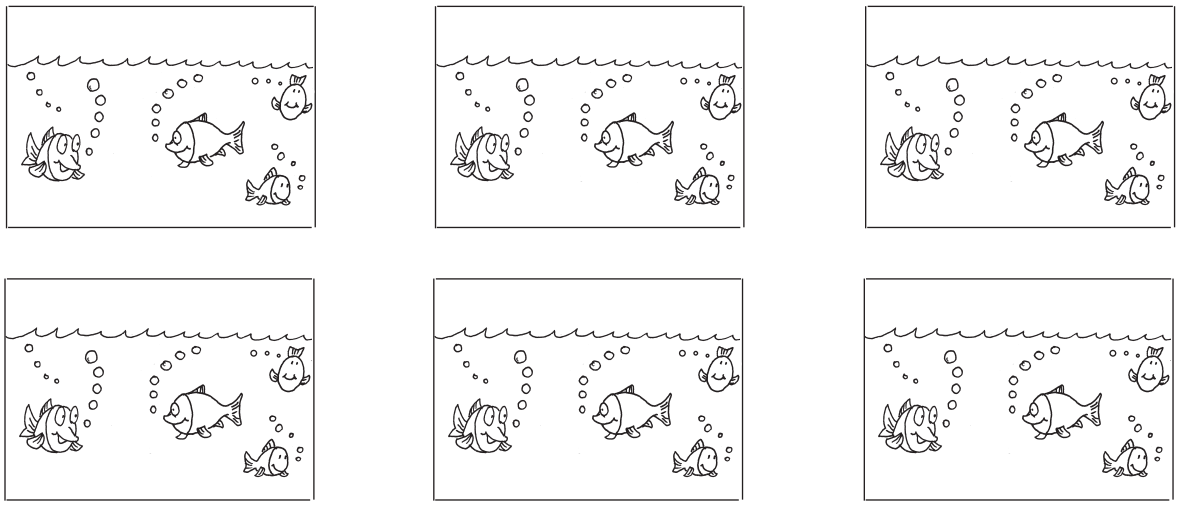
24.



_____ × _____ = _____ _____ ÷ _____ = _____

_____ × _____ = _____ _____ ÷ _____ = _____

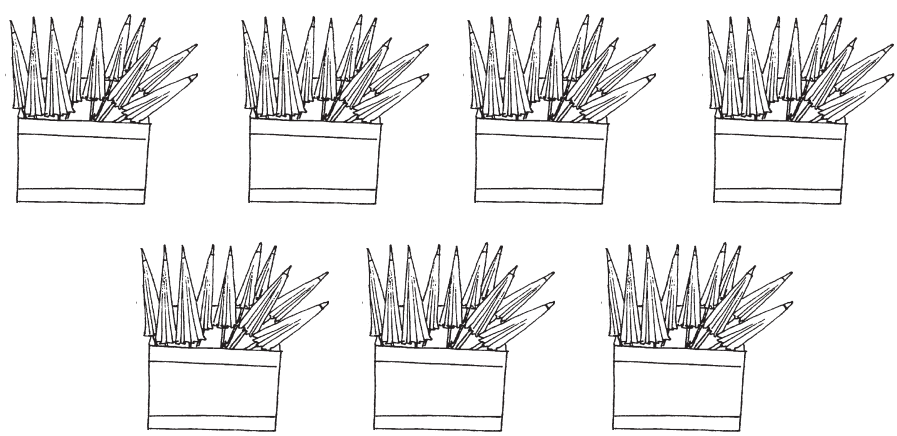
25.



_____ × _____ = _____ _____ ÷ _____ = _____

_____ × _____ = _____ _____ ÷ _____ = _____

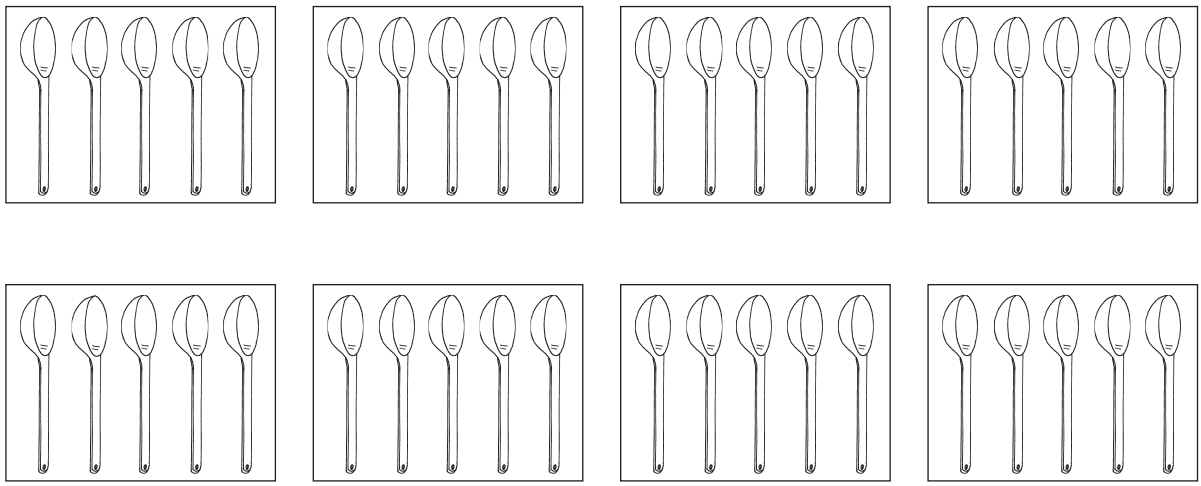
26.



_____ × _____ = _____ _____ ÷ _____ = _____

_____ × _____ = _____ _____ ÷ _____ = _____

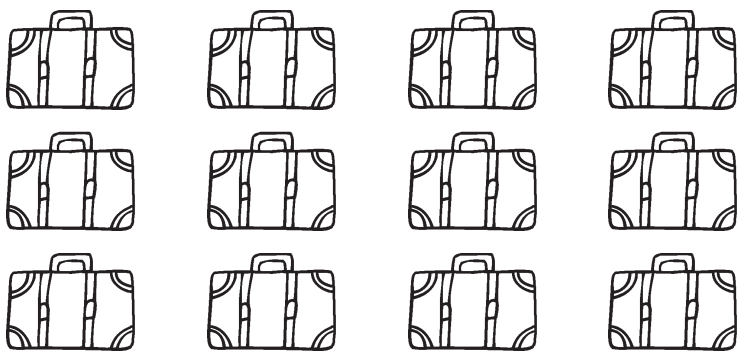
27.



_____ × _____ = _____ _____ ÷ _____ = _____

_____ × _____ = _____ _____ ÷ _____ = _____

28.



_____ × _____ = _____ _____ ÷ _____ = _____

_____ × _____ = _____ _____ ÷ _____ = _____

Solve the following story problems. Show your work in the space below.

29. Mom buys 6 bags of apples. There are 5 apples in each bag. How many apples are there altogether?

There are _____ apples altogether.

30. Sam spends $10 every week. How much does he spend in 8 weeks?

Sam spends $_____ in 8 weeks.

31. Leyla bought 4 meters of fabric. Each meter cost $7. How much did Leyla spend altogether?

Leyla spent $_____ altogether.

32. Dad sews 15 buttons on 3 shirts. How many buttons are there on each shirt?

There are _____ buttons on each shirt.

33. Alicia packs 10 packages of crackers into each bag. If there are 100 packages of crackers, how many bags does Alicia need?

Alicia needs _____ bags.

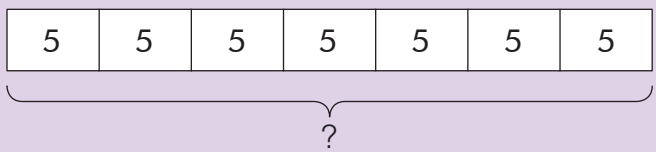
34. Maggy saves $5 every month. How much will she save in 10 months?

Maggy will save $_____ in 10 months.

Unit 7: FUN WITH MODELS (MULTIPLYING AND DIVIDING)

Examples:

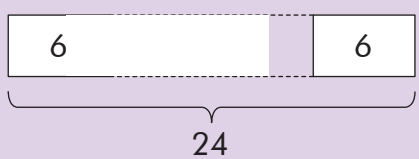
1. Gigi uses 5 oranges to make a glass of juice.
   She makes 7 glasses of juice.
   How many oranges does she use altogether?



$7 \times 5 = 35$

She uses **35** oranges altogether.

2. Yumi spent $24 on some T-shirts.
   Each T-shirt cost $6.
   How many T-shirts did she buy?



$\$24 \div \$6 = 4$

She bought **4** T-shirts.

Draw the models, and solve the following story problems.

1. There are 5 albums. Each album contains 10 stamps. How many stamps are there in all?

   There are _____ stamps in all.

2. There are 3 eggs in a bag. How many eggs are there in 6 bags?

   There are _____ eggs in 6 bags.

3. Grace and 4 friends share 30 oranges equally. How many oranges does each of them have?

   Each of them has _____ oranges.

4. Hakeem buys 4 packets of stickers. There are 9 stickers in each packet. How many stickers does he buy?

He buys _____ stickers.

5. Kelly bought 18 sunflowers. She placed on equal number into 2 vases. How many sunflowers were there in each vase?

There were _____ sunflowers in each vase.

6. Ms. Drew gave 36 markers to some children. Each child received 4 markers. How many children did Ms. Drew give the markers to?

Ms. Drew gave the markers to _____ children.

7. Each child has 7 library books. How many books do 5 children have?

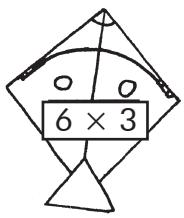
5 children have _____ library books.

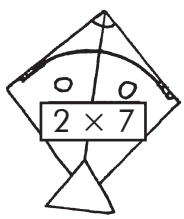
8. Mom bought 21 rolls. She placed 3 rolls on each plate. How many plates did she use?

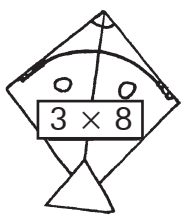
She used _____ plates.

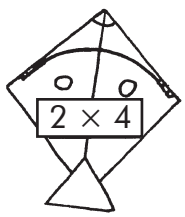
REVIEW 3

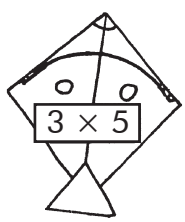
Match each kite to the correct girl.

1. 

2. 

3. 

4. 

5. 

Fill in each blank with the correct answer.

6. $80 \div 10 =$ _____

7. $45 \div 5 =$ _____

8. $12 \div 2 =$ _____

9. $24 \div 3 =$ _____

10. $28 \div 4 =$ _____

11. _____ $\times 4 = 16$

12. $10 \times$ _____ $= 20$

13. $6 \times$ _____ $= 18$

14. _____ $\times 5 = 25$

15. _____ $\times 10 = 100$

Draw the models, and solve the following story problems.

16. There are 6 pencils in a box. How many pencils are there in 4 boxes?

There are _____ pencils in 4 boxes.

17. Zoe and 3 cousins shared a sum of $36. How much did each of them receive?

Each of them received $_____.

18. Dad makes 50 muffins. He gives all the muffins to some friends. Each friend receives 5 muffins. How many friends does Dad give the muffins to?

Dad gives the muffins to _____ friends.

19. There are 30 pieces of colored paper in a package. There are 6 different colors. How many pieces of each color are there if the package contains an equal number of pieces for each color?

There are _____ pieces of each color.

20. Mrs. Yamamoto has 4 children. She buys a pair of gloves for each child. How many gloves does she buy?

She buys _____ gloves.

Unit 8: LENGTH

Examples:

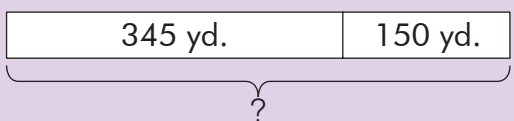
1.

What is the length of the card shown above?

$12 - 3 = 9$

The length of the card is **9 cm**.

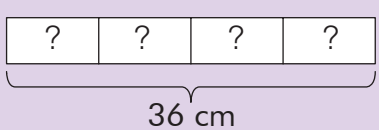
2. Charlotte walked 345 yd. to a café.
She walked another 150 yd. to the park.
How far did she walk in all?



$345 + 150 = 495$

She walked **495 yd.** in all.

3. Fanny sews 4 pieces of ribbon to each side of a square cushion.
If she uses 36 cm of ribbon altogether, what is the length of each piece of ribbon?



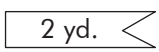
$36 \div 4 = 9$

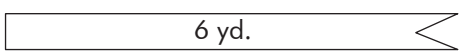
The length of each piece of ribbon is **9 cm**.

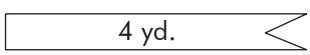
Write *more* or *less* on the lines.

1. The height of a flagpole is _____ than 1 m.
2. The length of a box of tissues is _____ than 1 m.
3. The length of a pencil is _____ than 1 m.
4. The height of a four-story school is _____ than 1 m.
5. The length of a workbook is _____ than 1 m.

Fill in each blank with the correct answer.

6. Ribbon A 

   Ribbon B 

   Ribbon C 

   (a) Ribbon _____ is the shortest.

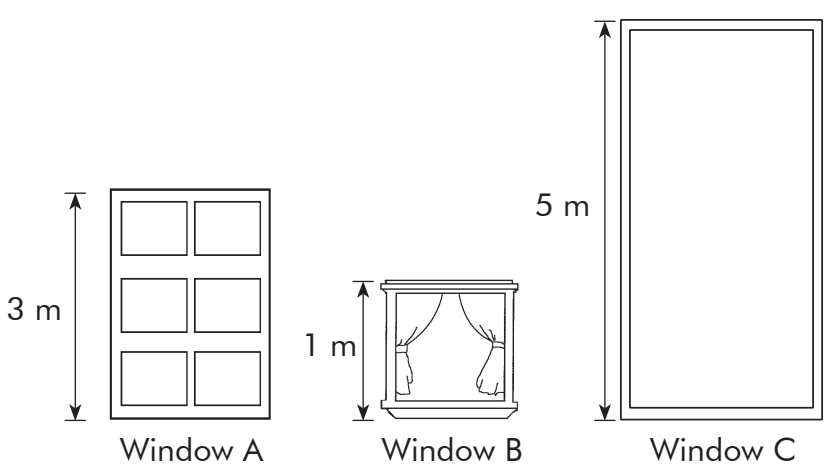
   (b) Ribbon _____ is the longest.

   (c) Ribbon A is _____ yd. shorter than Ribbon C.

   (d) Ribbon C is _____ yd. shorter than Ribbon B.

   (e) Ribbon B is _____ yd. longer than Ribbon C.

   (f) Ribbon B is _____ yd. longer than Ribbon A.

7. 

(a) Window _____ is the tallest.

(b) Window _____ is the shortest.

(c) Window A is _____ m shorter than Window C.

(d) Window B is _____ m shorter than Window A.

(e) Window C is _____ m taller than Window B.

(f) Window C is _____ m taller than Window A.

8. Use a ruler to draw a line 4 in. long. Label it XY.

9. Use a ruler to draw a line 6 in. long. Label it WX.

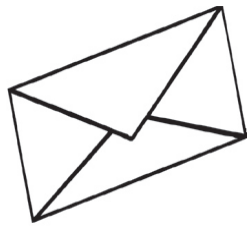
10. Use a ruler to draw a line 5 in. long. Label it YZ.

Measure the following items with a ruler, and answer questions 11 to 14.

11. 

The pen is _____ cm long.

12.

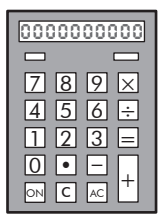


The envelope is _____ cm long.

13.

The notebook is _____ cm wide.

14.



The calculator is _____ cm wide.

Fill in each blank with *longer than* or *shorter than*.

15. A _____ B _____

Line B is _____ Line A.

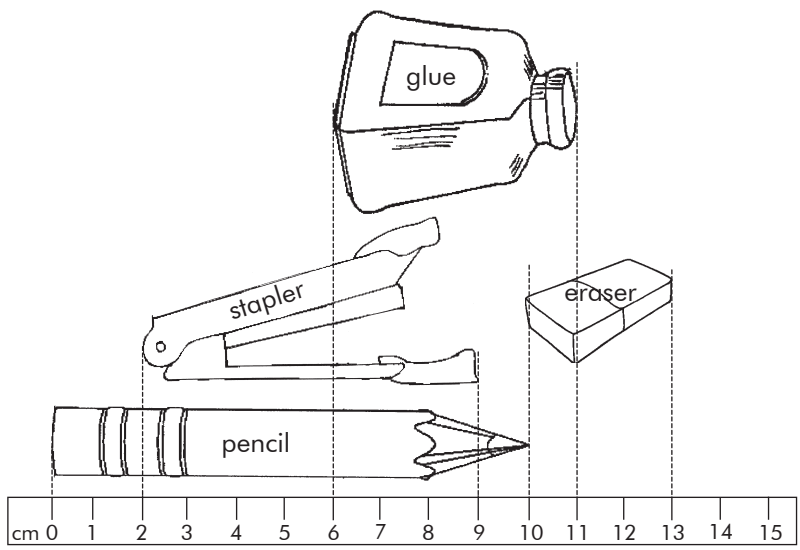
16. A _____ B _____

Line A is _____ Line B.

17. A _____ B _____

Line A is _____ Line B.

18. Study the picture carefully. Fill in each blank with the correct answer.



(a) The stapler is _____ cm long.

(b) The eraser is _____ cm long.

(c) The bottle of glue is _____ cm long.

(d) The pencil is _____ cm long.

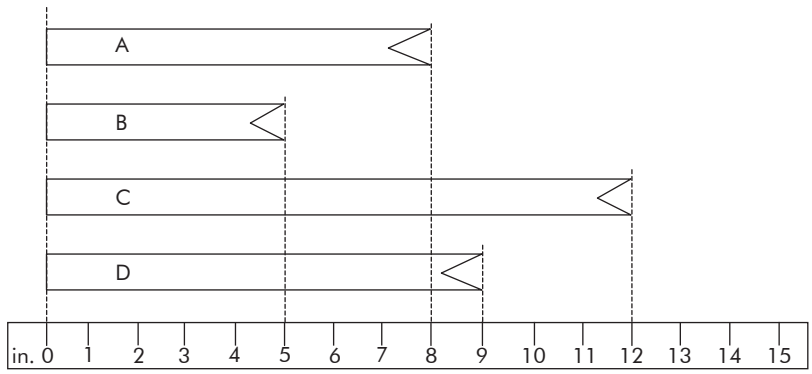
(e) The eraser is _____ cm shorter than the pencil.

(f) The stapler is _____ cm longer than the bottle of glue.

(g) The longest item is the _____.

(h) The shortest item is the _____.

19.



(a) Ribbon A is _____ in. long.

(b) Ribbon B is _____ in. long.

(c) Ribbon C is _____ in. long.

(d) Ribbon D is _____ in. long.

(e) Ribbon _____ is the longest.

(f) Ribbon _____ is the shortest.

(g) Ribbon C is _____ in. longer than Ribbon A.

(h) Ribbon D is 3 in. shorter than Ribbon _____.

Fill in each blank with the correct answer.

20. 38 in. + 78 in. = _____ in.

21. 125 cm – 89 cm = _____ cm

22. 236 yd. + 279 yd. = _____ yd.

23. 468 cm – 318 cm = _____ cm

24. 200 yd. – 65 yd. = _____ yd.

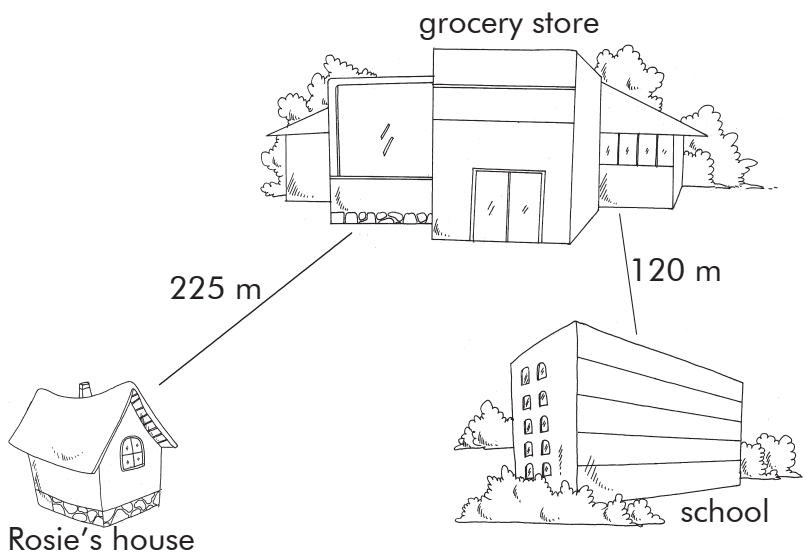
25. 399 m + 121 m = _____ m

Solve the following story problems. Show your work in the space below. Draw the appropriate models.

26. Miles sewed 278 in. of curtains on Monday. He sewed 516 in. of curtains on Tuesday. Find the total length of curtains Miles sewed on both days.

The total length of curtains Miles sewed on both days was _____ in.

27.



After school, Rosie goes to the grocery store to buy some milk before going home. How far does she travel?

She travels _____ m.

28. The stadium is 350 yd. away from Samir's house. Samir jogs to the stadium and back to his house. How far does he jog?

He jogs _____ yd.

29. Kate has a piece of ribbon 26 cm long. June has a piece of ribbon that is 13 cm shorter than Kate's ribbon.

(a) What is the length of June's ribbon?

June's ribbon is _____ cm long.

(b) Find the total length of the 2 ribbons.

The total length of the 2 ribbons is _____ cm long.

30. Nicholas placed 3 boxes side by side. The length of each box was 10 in. What was the length of the 3 boxes?

The length of the 3 boxes was _____ in.

31. Juan placed 8 toothpicks along a straight line. The length of each toothpick was 5 cm. What was the length of 8 toothpicks?

The length of 8 toothpicks was _____ cm.

32. Mr. Oliver cuts a rope that is 6 ft. long into 2 equal pieces. What is the length of each piece of rope?

The length of each piece of rope is _____ ft.

33. Leo tears a strip of paper that is 27 cm long into equal pieces. Each piece of paper measures 3 cm. How many pieces of paper does Leo have?

Leo has _____ pieces of paper.

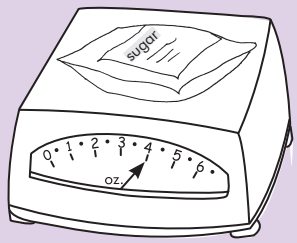
34. The length of a piece of string is 32 in. Gabrielle cuts the string into equal pieces. Each piece of string measures 4 in. How many pieces of string does Gabrielle have?

Gabrielle has _____ pieces of string.

Unit 9: MASS

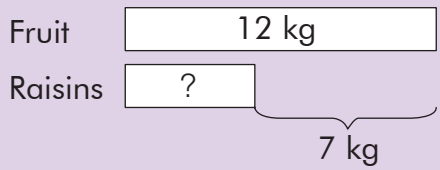
Examples:

1. What is the mass of the bag of sugar below?



4 oz.

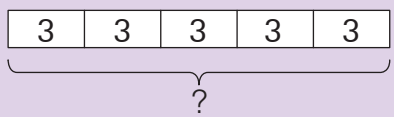
2. The mass of a bag of fruit is 12 kg. The mass of a bag of raisins is 7 kg lighter than the bag of fruit. What is the mass of the bag of raisins?



$12 - 7 = 5$

The mass of the bag of raisins is **5 kg**.

3. Mrs. Giggs has 5 identical packages. Each package has a mass of 3 lb. What is the mass of all 5 packages?

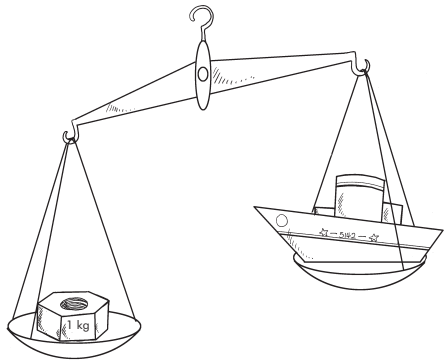


$5 \times 3 = 15$

The mass of all 5 packages is **15 lb**.

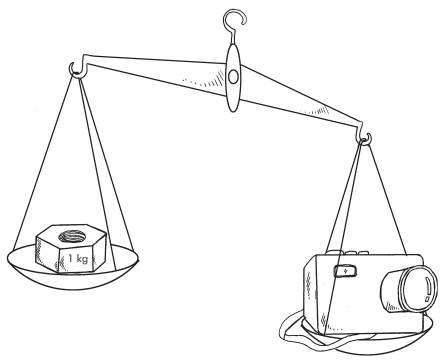
Fill in each blank with *more than* or *less than*.

1.



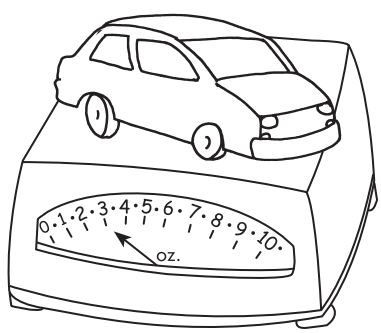
The mass of the toy ship is _____ 1 kg.

2.



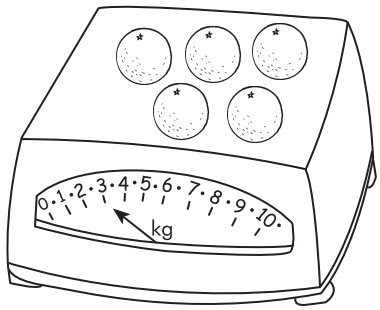
The mass of the camera is _____ 1 kg.

3.



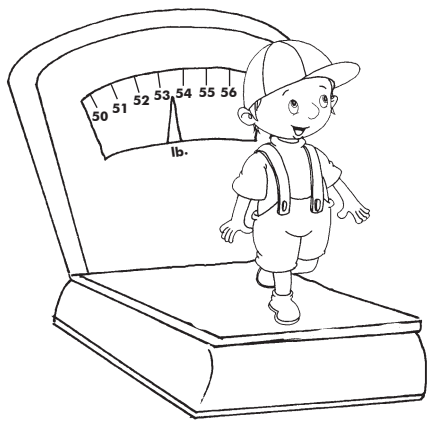
The mass of the toy car is _____ 4 oz.

4.



The mass of the oranges is _____ 2 kg.

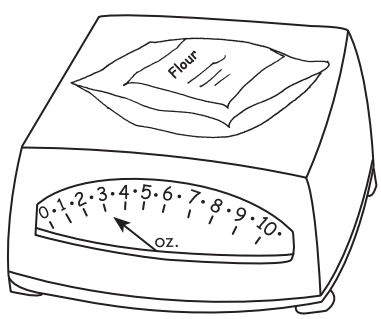
5.



The mass of the boy is _____ 50 lb.

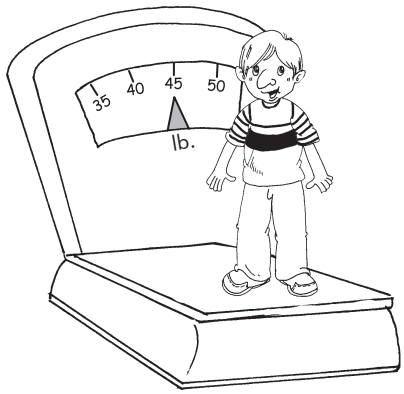
Look at each picture carefully. Write the correct mass on the lines provided.

6.



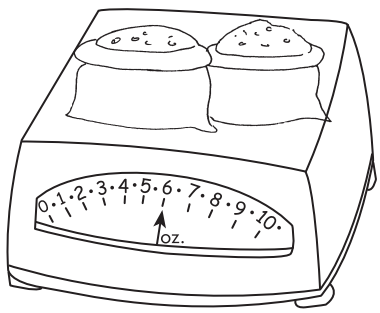
_____ oz.

7.



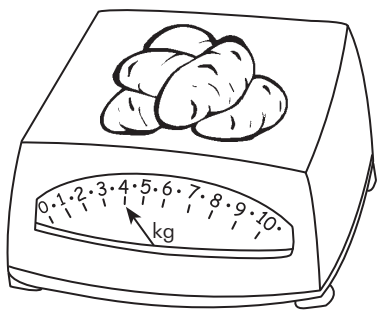
_____ lb.

8.



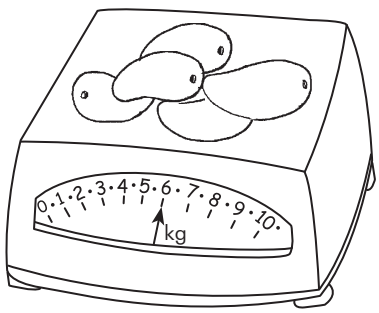
_____ oz.

9.



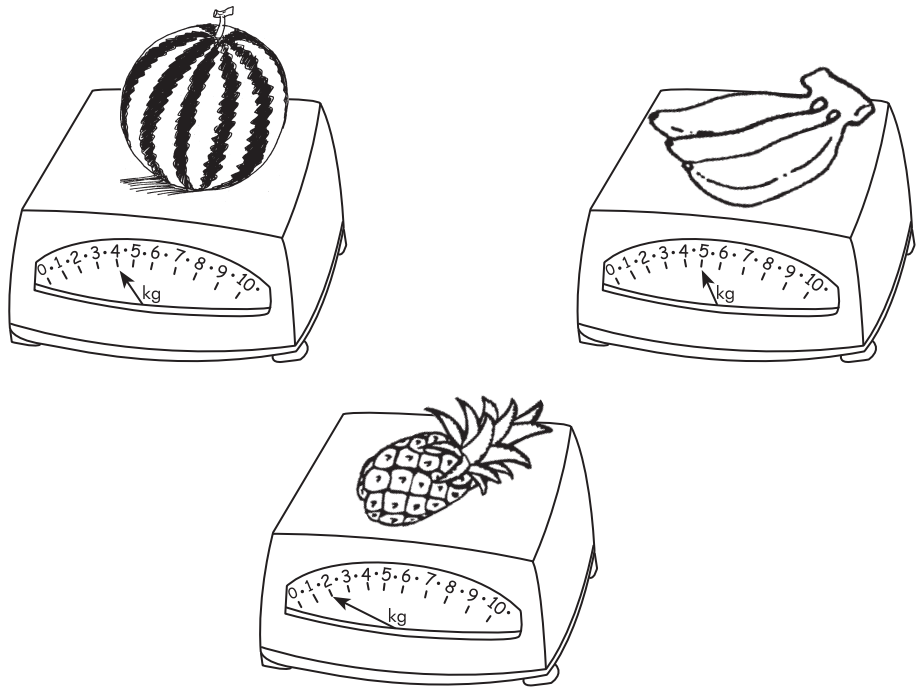
_____ kg

10.



_____ kg

11. Study the pictures below, and fill in each blank with the correct answer.



(a) The mass of the watermelon is _____ kg.

(b) The mass of the bunch of bananas is _____ kg.

(c) The mass of the pineapple is _____ kg.

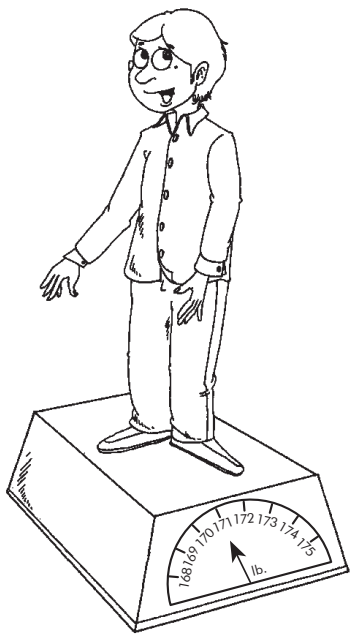
(d) The _____ is the heaviest.

(e) The _____ is the lightest.

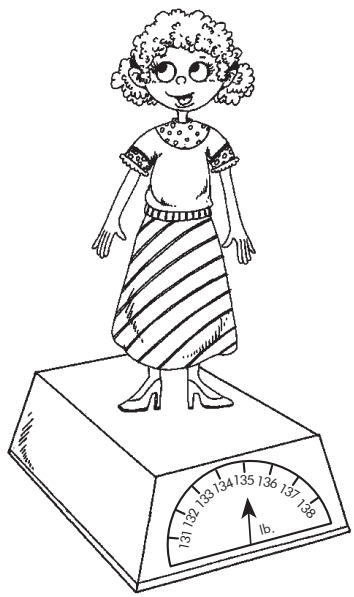
(f) Arrange the fruit in order. Begin with the heaviest fruit.

_____

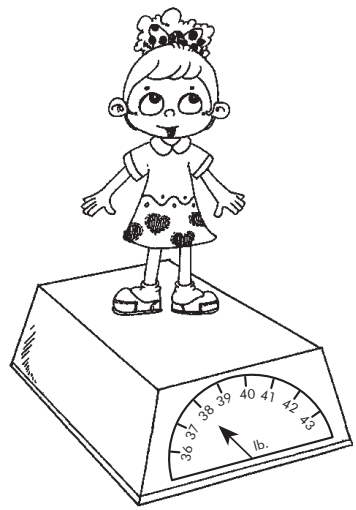
12. Study the pictures below, and fill in each blank with the correct answer.



Alan



Susan



Anne

(a) Alan has a mass of _____ lb.

(b) Susan has a mass of _____ lb.

(c) Anne has a mass of _____ lb.

(d) _____ is the lightest.

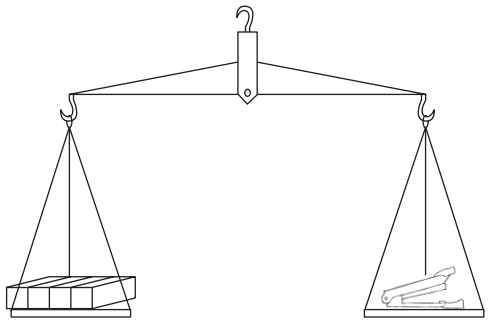
(e) _____ is the heaviest.

(f) Arrange them in order. Begin with the lightest mass.

_____

Look at each picture carefully. Fill in each blank with the correct answer.

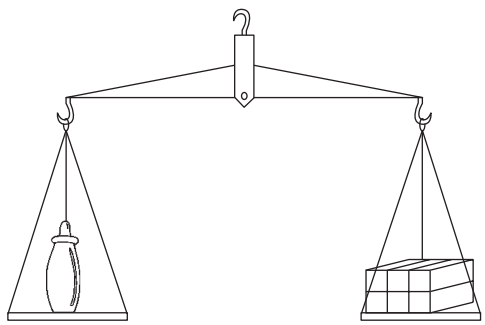
13.



The mass of each  is 1 g.

The stapler is _____ g.

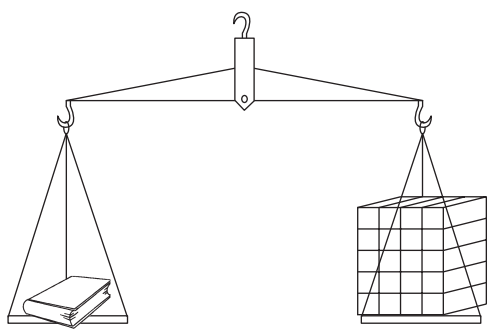
14.



The mass of each  is 1 oz.

The bottle is _____ oz.

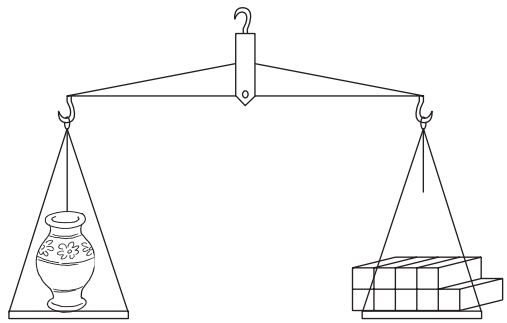
15.



The mass of each  is 1 g.

The dictionary is _____ g.

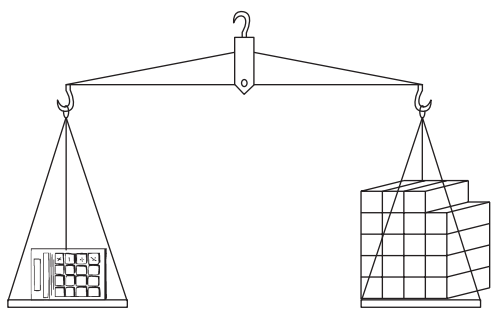
16.



The mass of each  is 1 oz.

The toy vase is _____ oz.

17.

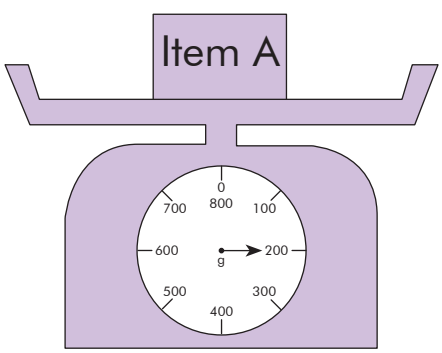


The mass of each  is 1 g.

The calculator is _____ g.

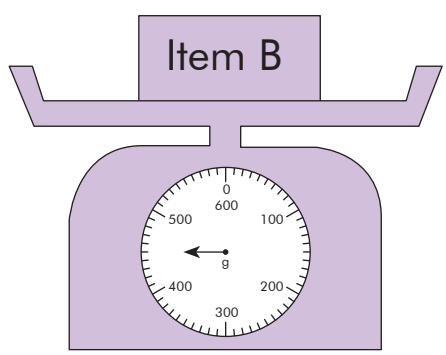
Look at the following kitchen scales. Fill in each blank with the correct answer. Include the unit in your answer.

18.



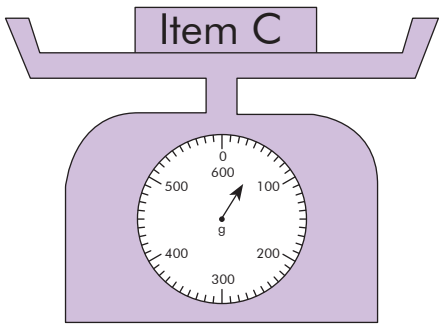
_____

19.



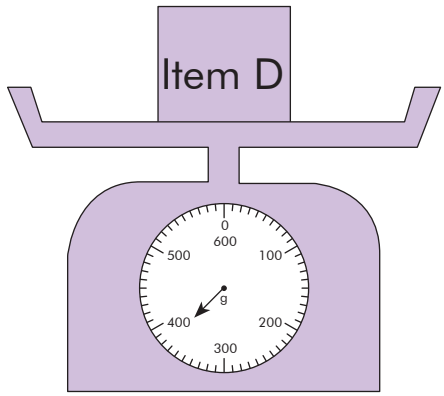
_____

20.



_____

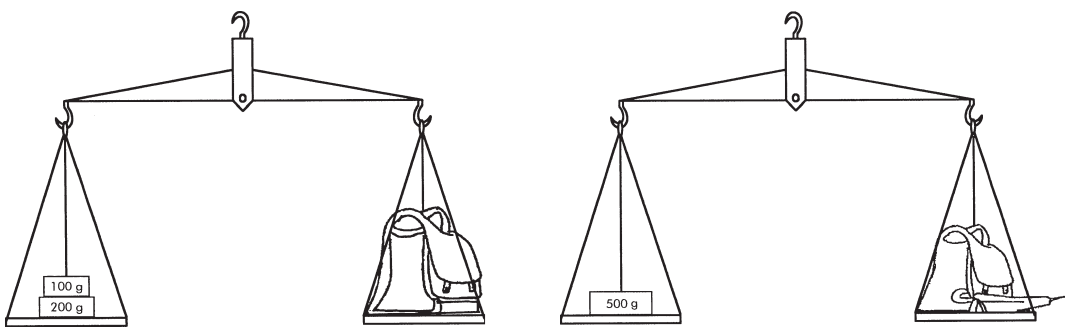
21.



_____

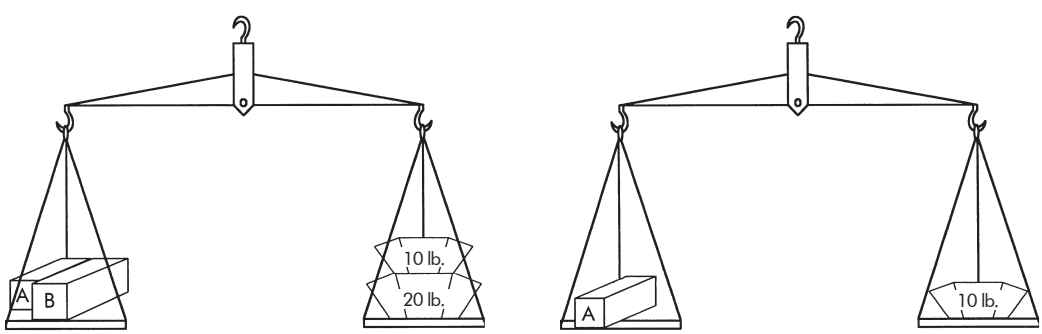
Fill in each blank with the correct answer. Include the unit in your answer.

22.



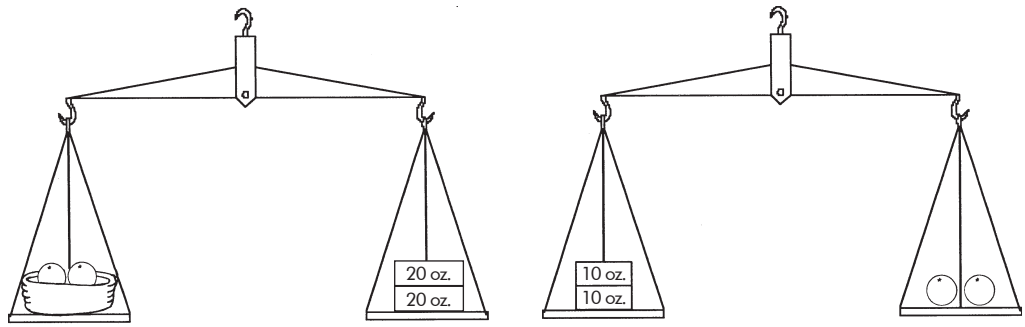
The umbrella has a mass of _____.

23.



Box B has a mass of _____.

24.

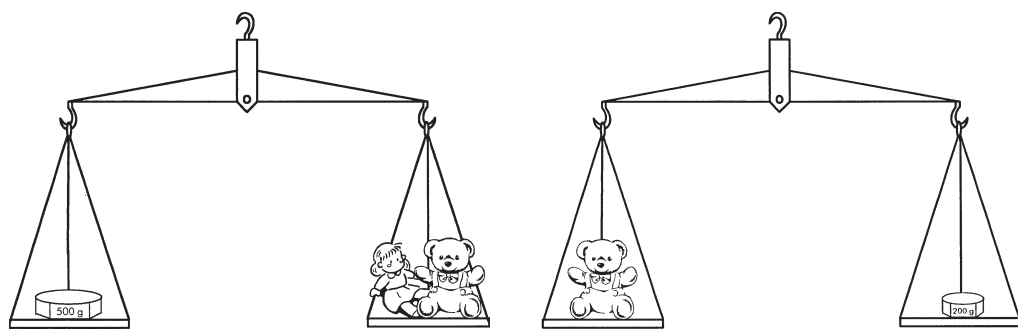


(a) The basket of oranges has a mass of _____.

(b) The oranges have a mass of _____.

(c) The basket has a mass of _____.

25.



(a) The teddy bear has a mass of _____.

(b) The teddy bear and the doll have a mass of _____.

(c) The doll has a mass of _____.

26. Sam has a pet at home. Fill in each blank with the correct answer, and match the letters to the numbers in the boxes below. The first one has been done for you. Find out what pet Sam has at home.

(a) 14 kg + 15 kg = | 29 kg | M |

(b) 20 oz. + 15 oz. = | | R |

(c) 360 g + 250 g = | | A |

(d) 170 lb. + 360 lb. = | | S |

(e) 415 g + 235 g = | | E |

(f) 509 lb. + 137 lb. = | | T |

(g) 816 g + 45 g = | | H |

		M				
861	610	29	530	646	650	35

27. Adam's birthday is coming soon. Fill in each blank with the correct answer, and match the letters to the numbers to find out what Adam wants for his birthday.

(a) 585 oz. – 232 oz. = ☐ S

(b) 616 kg – 307 kg = ☐ Z

(c) 900 lb. – 450 lb. = ☐ U

(d) 369 kg – 180 kg = ☐ L

(e) 838 lb. – 639 lb. = ☐ E

(f) 620 g – 505 g = ☐ P

(g) 246 oz. – 97 oz. = ☐ Z

☐	☐	☐	☐	☐	☐	☐
115	450	309	149	189	199	353

Solve the following story problems. Show your work in the space below. Draw the appropriate models.

28. Aliyah uses 50 kg of flour, 14 kg of sugar, and 13 kg of butter to bake 10 cakes. How many kilograms of ingredients does she use altogether?

She uses _____ kg of ingredients altogether.

29. Aidan has a mass of 43 lb. Tom is 10 lb. heavier than Aidan. What is Tom's mass?

Tom's mass is _____ lb.

30. A contractor uses 83 kg of cement and sand to build a wall. If he uses 27 kg of sand, how much cement does he use?

He uses _____ kg of cement.

31. Angelo's family eats 13 oz. of rice every week. Noah's family eats 4 oz. less of rice. How much rice does Noah's family eat every week?

Noah's family eats _____ oz. of rice every week.

32. Kelly bought 380 g of meat. She then bought some fish. If the total mass of these 2 items was 945 g, how many grams of fish did she buy?

She bought _____ g of fish.

33. Aunt Rebecca bought 3 bags of tomatoes. Each bag had a mass of 2 lb. What was the total mass of the 3 bags of tomatoes?

The total mass of the 3 bags of tomatoes was _____ lb.

34. Colin bought 20 kg of flour. Each bag of flour had a mass of 5 kg. How many bags of flour did Colin buy?

Colin bought _____ bags of flour.

35. Priscilla has 10 plums. Each plum has a mass of 4 oz. What is the total mass of the 10 plums?

The total mass of the 10 plums is _____ oz.

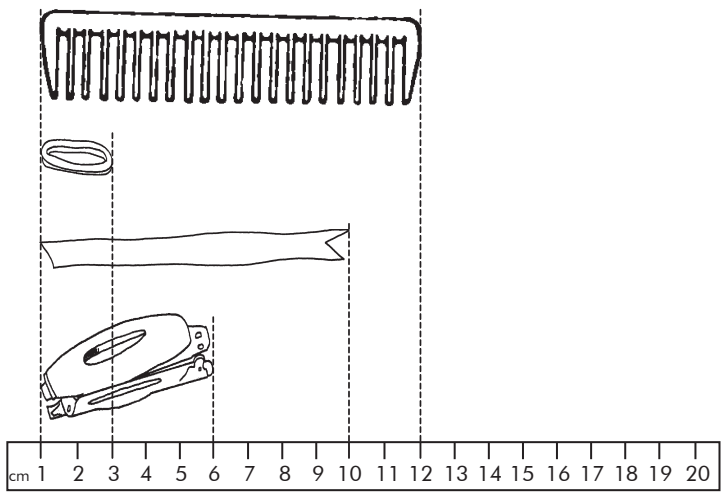
36. Mom bought 12 kg of strawberries. She divided the strawberries equally into 4 bags. What was the mass of each bag?

The mass of each bag of strawberries was _____ kg.

REVIEW 4

Fill in each blank with the correct answer.

1.



(a) The hair clip is _____ cm long.

(b) The ribbon is _____ cm long.

(c) The comb is _____ cm long.

(d) The rubber band is _____ cm long.

(e) The ribbon is shorter than the comb by _____ cm.

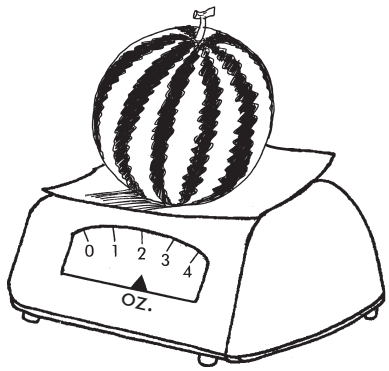
(f) The hair clip is longer than the rubber band by _____ cm.

(g) The total length of the hair clip and the comb is _____ cm.

(h) Arrange the items in order. Begin with the shortest.

_____

2.



The mass of the watermelon is _____ oz.

3. Which line is the shortest?

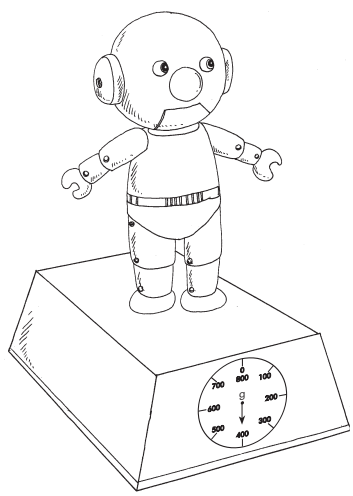
A _____

B _____

C _____

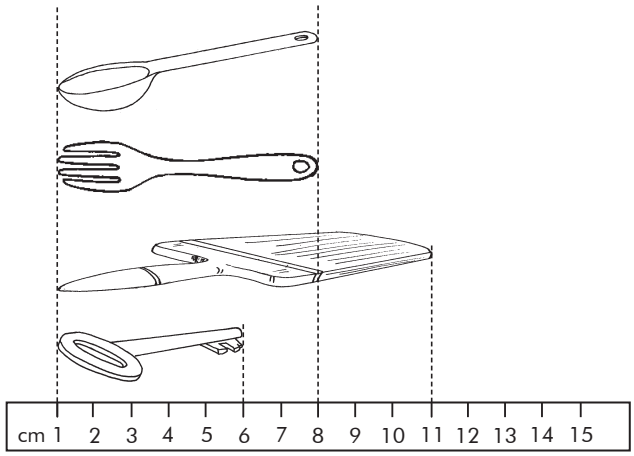
Line _____ is the shortest.

4.



The mass of the toy robot is _____ g.

5.



(a) The key is _____ cm long.

(b) The paintbrush is _____ cm long.

(c) The spoon is _____ cm long.

(d) The fork is _____ cm long.

(e) The key is shorter than the fork by _____ cm.

(f) The paintbrush is longer than the spoon by _____ cm.

(g) The _____ and _____ have the same length.

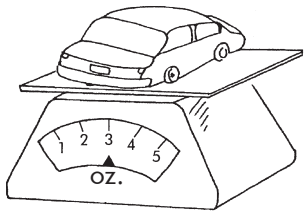
(h) Arrange the items in order. Begin with the longest.

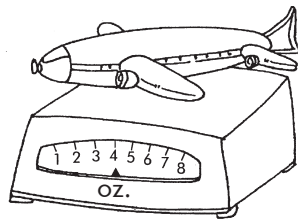
_____

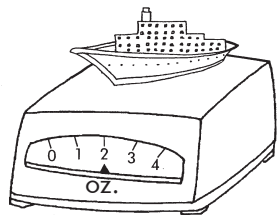
6.

The mass of the cat is _____ lb.

7.







(a) The mass of the toy car is _____.

(b) The mass of the toy plane is _____.

(c) The mass of the toy ship is _____.

(d) The _____ is the heaviest.

(e) The _____ is the lightest.

8. Which line is the longest?

A _____

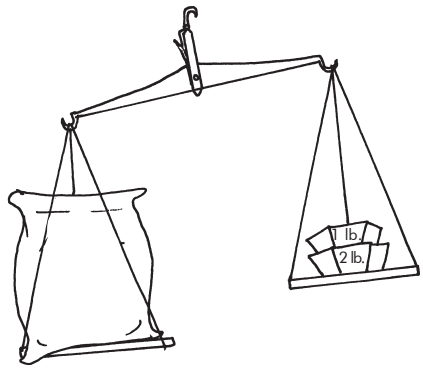
B _____

C _____

Line _____ is the longest.

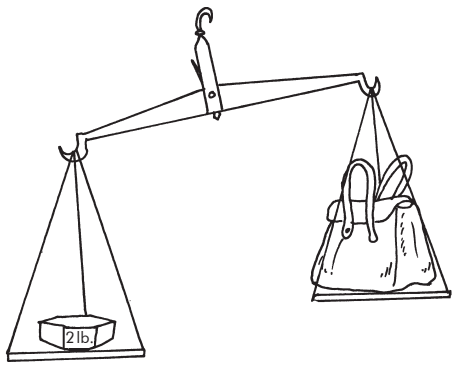
Fill in each blank with *more than* or *less than*.

9.



The bag of rice is _____ 3 lb.

10.



The purse is _____ 2 lb.

Fill in each blank with the correct answer.

11. 40 yd. + 68 yd. = _____ yd.

12. 435 in. – 79 in. = _____ in.

13. 616 in. – 327 in. = _____ in.

14. 125 ft. + 225 ft. = _____ ft.

15. 609 yd. + 163 yd. = _____ yd.

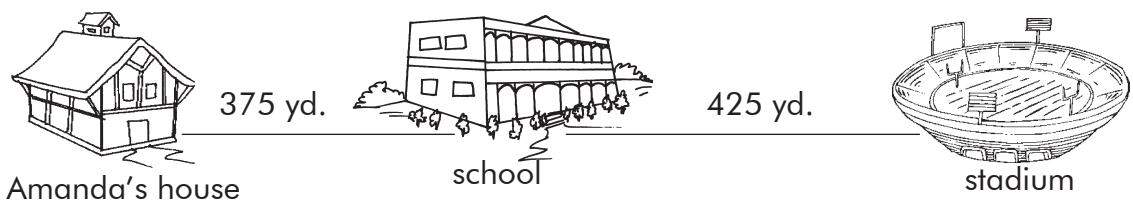
Solve the following story problems. Show your work in the space below. Draw the appropriate models.

16.

How much farther is David's house from the shopping center than from the supermarket?

David's house is _____ m farther from the shopping center than from the supermarket.

17. Amanda jogs from her house to the stadium every day. Her jogging route is shown below.



How far does Amanda jog from her house to the stadium?

Amanda jogs _____ yd. from her house to the stadium.

18. Kenya came back from a trip. She brought along 2 pieces of luggage that weighed 8 lb. each. Find the total mass of her luggage.

The total mass of her luggage was _____ lb.

19. Jonathan bought some cherries. Each cherry had a mass of 3 g. The total mass of the cherries was 15 g. How many cherries did he buy?

He bought _____ cherries.

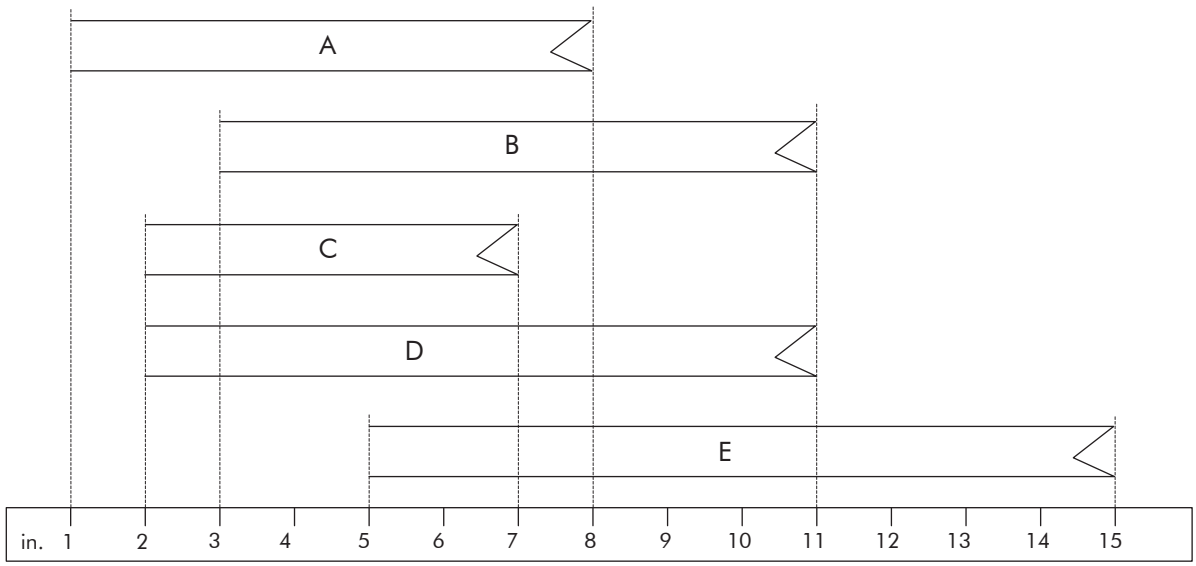
20. Su-Lin placed 5 rulers side by side. Each ruler had a length of 10 cm. What was the length of the 5 rulers?

The length of the 5 rulers was _____ cm.

MID-REVIEW

Fill in each blank with the correct answer.

1.



(a) Ribbon B is _____ in. long.

(b) Ribbon C is _____ in. long.

(c) Ribbon D is _____ in. long.

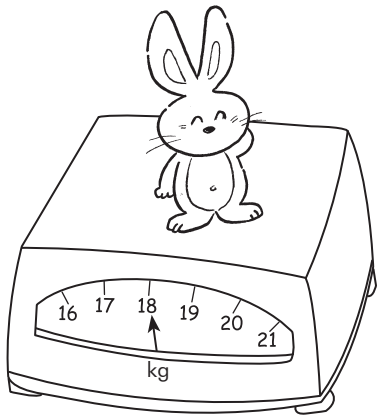
(d) Ribbon E is _____ in. long.

(e) The total length of ribbons A and C is _____ in.

(f) Arrange the ribbons in order. Begin with the longest.

_____

2.



The mass of the rabbit is _____ kg.

3. Write the number in words on the line.

647 _____

4. Arrange the following numbers in order. Begin with the smallest.

415	303	540	405	330

_____, _____, _____, _____, _____

5. The product of 3 and 9 is _____.

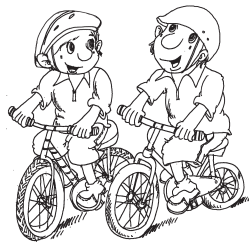
6. The sum of 237 and 508 is _____.

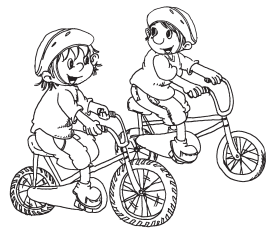
7. The difference between 717 and 169 is _____.

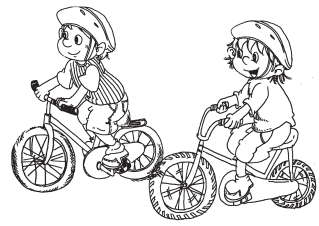
8. 10 more than 590 is _____.

9. 120 is 10 less than _____.

10. Write 2 multiplication and division sentences using the pictures below.





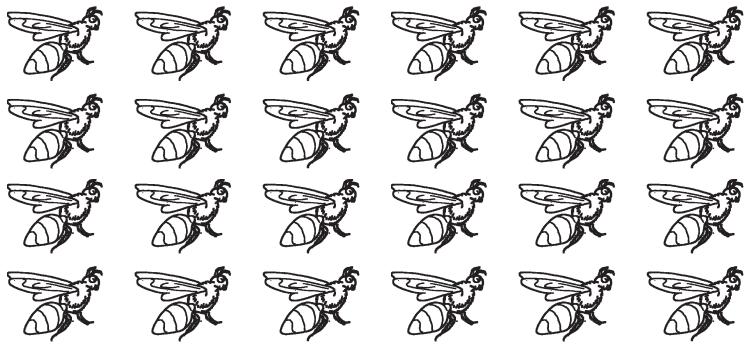
_____ × _____ = _____ _____ × _____ = _____

_____ ÷ _____ = _____ _____ ÷ _____ = _____

11. Complete the number pattern.

660, _____, 700, 720, _____

12. Divide 24 bees into 4 equal groups.



24 ÷ _____ = _____

There are _____ bees in each group.

Fill in each blank with the correct answer.

13. (a) 105 cm + 68 cm = _____

(b) 32 lb. – 16 lb. = _____

(c) _____ × 3 = 24

(d) 612 + 258 = _____

(e) 300 – 125 = _____

Write the correct answers on the lines.

14. The table below shows the different colors of roses sold by a florist in a week.

red	315
yellow	197
white	280

(a) How many fewer yellow roses were sold than white ones?

_____

(b) How many red and white roses were sold altogether?

_____

15. Omar wants to buy a remote-controlled airplane. It costs $65, but he has only $49. How much more money does he need?

_____

16. Emily used 185 cm of cloth to sew some cushion covers. She used 275 cm of cloth to sew blankets. How much cloth did she use altogether?

_____

17. Michael has 35 baseball cards. He gives an equal number of cards to 5 friends. How many cards does each friend get?

_____

18. Mei baked 460 dog biscuits on Friday. She baked 150 fewer biscuits on Saturday.

    (a) How many dog biscuits did she bake on Saturday?

    _____

    (b) How many dog biscuits did she bake altogether?

    _____

19. Imani plants 3 rows of cacti in her garden. There are 7 cacti in each row. How many cacti does she plant altogether?

_____

20. Vivian walks 150 yd. from her house to a store. She then walks another 180 yd. to a playground. How far does Vivian walk in all?

_____

Solve the following story problems. Show your work in the space below. Draw the appropriate models.

21. Dakota has 5 kiwi fruits. Each kiwi has a mass of 10 g. What is the total mass of the 5 kiwis?

22. Mrs. Coleman collected 32 pages of homework from a group of students. Each student turned in 4 pages. How many students did Mrs. Coleman collect the pages from?

23. Hannah receives a daily allowance of $2. How much money does she receive from Monday to Friday?

24. 3 girls shared a piece of cloth equally. The total length of the piece of cloth was 9 yd. What was the length of cloth received by each girl?

25. A carpenter needs 4 days to build a bookshelf. How many days does he need to make 3 bookshelves?

CHALLENGE QUESTIONS

Solve the following problems on another sheet of paper.

1. Guess the 3-digit number based on the hints below.
   - The first digit is greater than 7 and is an even number.
   - The second digit is smaller than 7 and is the smallest odd number.
   - The third digit is the difference between the first and the second digits.

2. Parker bought a skateboard for $126. He paid the cashier the exact amount with 10 bills. Identify the bills he used to pay for the skateboard.

3. Jessica has twice as many apples as Deepak. Deepak has 3 times as many apples as Gina. Gina has 2 apples. Draw a model, and find the number of apples Jessica has.

4. Mr. Schneider's mass is 2 digits. The first digit is 3 times the second digit. Both digits are odd numbers, and his mass is greater than 35 kg. What is Mr. Schneider's mass?

5. The sum of 2 facing pages of an opened dictionary can be divided by 3. The result of the division is 3. What are the 2 facing pages?

6. Carlos, Tyler, and Danny each have a ruler. Tyler's ruler is longer than Carlos's ruler but shorter than Danny's ruler. Who has the shortest ruler?

7. Jenna had a box of marbles. Her mother gave her twice the number of marbles Jenna already had. Her father gave her 3 times the number of marbles her mother gave her. Jenna had 27 marbles in the end. How many marbles did she have in the beginning?

8. Simon had a bill. He used it to buy a shirt for $20 and received the change in four bills of the same amount. What was the bill that Simon had in the beginning?

9. The sum of 3 consecutive numbers, or 3 numbers in a row, is 9. What are the 3 numbers?

10. The sum of 2 facing pages of an opened comic book can be divided by 3. The result is 7. What are the 2 facing pages?

11. Mia is heavier than Dante but lighter than Sierra. Who is the heaviest among the 3 children?

2B LEARNING OUTCOMES

Unit 10 Mental Calculations
Students should be able to
- add 2 numbers mentally.
- subtract 2 numbers mentally.

Unit 11 Money
Students should be able to
- count and write money in dollars and cents.
- convert dollars to cents or cents to dollars.
- compare money.
- solve story problems related to money.

Review 5
This review tests students' understanding of Units 10 & 11.

Unit 12 Fractions
Students should be able to
- understand that fractions are equal parts.
- identify fractions from $\frac{1}{2}$ to $\frac{1}{12}$.
- compare and arrange fractions.
- add and subtract like fractions.
- solve story problems related to fractions.

Unit 13 Time
Students should be able to
- read and write the correct time.
- use *A.M.*, *P.M.*, *hr.,* and *min.* correctly.
- draw hour and minute hands correctly.
- find the time half an hour or one hour before/after a certain time.

Review 6
This review tests students' understanding of Units 12 & 13.

Unit 14 Volume
Students should be able to
- compare volumes of liquid.
- read and measure volumes of liquid in liters and gallons.
- add, subtract, multiply, and divide volume.
- solve story problems related to volume.

Unit 15 Graphs
Students should be able to
- read and understand picture graphs with scales.
- create picture graphs with scales.
- use picture graphs to solve problems.

Review 7
This review tests students' understanding of Units 14 & 15.

Unit 16 Lines and Surfaces
Students should be able to
- recognize straight lines and curves.
- recognize objects with only flat surfaces.
- count the number of flat surfaces an object has.

Unit 17 Shapes and Patterns
Students should be able to
- recognize squares, rectangles, circles, semicircles, quarter circles, and triangles in 2-D objects.
- recognize cubes, cuboids, cones, and cylinders in 3-D objects.
- draw 2-D shapes on dot or square grids.
- complete a pattern.

Review 8
This review tests students' understanding of Units 16 & 17.

Final Review
This review is an excellent assessment of students' understanding of all the topics in this book.

FORMULA SHEET

Unit 10 Mental Calculations

Addition and subtraction can be done mentally by rounding numbers and breaking up numbers.

Mental addition by rounding numbers

① Round one of the addends, A, to the nearest ten.
② Mentally add the rounded number to the other addend, B.
③ Subtract the difference between the rounded number and addend A from the sum.

Mental addition by breaking up numbers

When one of the addends, A, is less than 10,
① break up the other addend, B, into ones and tens/hundreds.
Example: Break up 364 into 4 and 360.
② Add the ones to get a sum.
③ Add the sum to the remaining tens/hundreds to get the final answer.
Apply the same method to an addend that is less than 100 or 1,000.

Mental subtraction by rounding numbers

① Round one of the subtrahends, A, to the nearest ten.
② Mentally subtract the rounded number from the other subtrahend, B.
③ Add the difference between the rounded number and subtrahend A to the result in ②.

Mental subtraction by breaking up numbers

When one of the subtrahends, A, is less than 10,
① break up the other subtrahend, B, into ones and tens/hundreds.
Example: Break up 526 into 6 and 520.
② Subtract the ones to get a result.
③ Add the result in ② to the remaining tens/hundreds.
Apply the same method to a subtrahend that is less than 100 or 1,000.

Unit 11 Money

Writing dollars and cents

$1 = 100¢

When writing dollars and cents, place a dollar sign ($) in the front and a decimal point (.) to separate them.
Example: $8.95
When writing dollars without any cents, add 2 zeros after the decimal point.
Example: $8.00
When writing cents without any dollars, add a zero before the decimal point.
Example: $0.95

Converting dollars to cents

- Remove the dollar sign ($) and the decimal point (.).
- Place the cent symbol (¢) after the number.

Example: $20.50 = 2,050¢

Converting cents to dollars

- Remove the cent symbol (¢).
- Place the dollar sign ($) before the number.
- Place the decimal point (.) just before the last 2 digits.

Example: 3,000¢ = $30.00

Comparing money

- Compare the dollars of the 2 amounts first.
- If the dollars are the same, compare the cents.

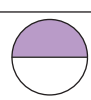
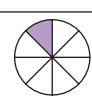
Unit 12 Fractions

In a fraction, each part must be equal.
Examples of a fraction: $\frac{1}{2}$, $\frac{2}{5}$, and $\frac{8}{8}$.
To make a whole, make sure all denominators are common. All numerators add up to equal the denominator.
Example: $\frac{2}{8}$ and $\frac{6}{8}$ make a whole.

Comparing and arranging fractions in order

- When denominators of all fractions are the same, compare their numerators.
  The largest fraction has the highest value in the numerator.
  Example: $\underset{\text{largest}}{\frac{4}{5}}$, $\frac{2}{5}$, $\frac{1}{5}$
- When numerators of all fractions are the same, compare their denominators.
  The largest fraction has the smallest value in the denominator.
  Example: $\underset{\text{largest}}{\frac{1}{4}}$, $\frac{1}{8}$, $\frac{1}{12}$

This table can be useful when comparing fractions.

$\frac{1}{2}$		$\frac{1}{8}$	
$\frac{1}{3}$		$\frac{1}{9}$	
$\frac{1}{4}$		$\frac{1}{10}$	
$\frac{1}{5}$		$\frac{1}{11}$	
$\frac{1}{6}$		$\frac{1}{12}$	
$\frac{1}{7}$			

Adding and subtracting fractions

- Make sure denominators of all fractions are the same.
- Add and subtract the numerators accordingly.

When one of the subtrahends is a whole, convert the whole into a fraction before subtracting.

Unit 13 Time

There are 24 hours in a day.

1 hour = 60 minutes

Numbers 1 to 12 can be seen on the face of a clock, as well as the hour hand and minute hand.
The minute hand is longer than the hour hand.

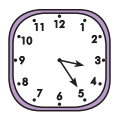
When the minute hand moves from one number to another, 5 minutes has passed.

When the hour hand moves from one number to another, 1 hour has passed.

The units of measurement for time are hour (hr.) and minute (min.).

Writing and reading time

We read the time on the clock as three twenty-five.
We write it as 3:25.



The abbreviation *A.M.* means before noon and *P.M.* means after noon.

Hence *A.M.* is used to talk about time between 12 midnight and 11:59 in the morning.

P.M. is used to talk about time between 12 noon and 11:59 at night.

We can find the time before/after a certain time if the duration is given.

Examples: 10:00 *A.M.* is 1 hr. before 11:00 *A.M.*
7:00 *P.M.* is 1 hr. after 6:00 *P.M.*
9:30 *A.M.* is 30 min. before 10:00 *A.M.*
5:30 *P.M.* is 30 min. after 5:00 *P.M.*

Unit 14 Volume

The volume of water in a container is the amount of water the container holds.

Comparing volume

- When the water level in 2 identical containers is the same, use the words *as much as*.
- When the water level in one container is higher than that of the other container, use the words *more than*.
- When the water level in one container is lower than that of the other container, use the words *less than*.

The unit of measurement for volume is liter (L) or gallon (gal.).

Unit 15 Graphs

Symbols represent the items in picture graphs.

Note the scales used in picture graphs. The symbol can stand for 1 item, 2 items, or even more.

Picture graphs help organize information for easy interpretation and problem solving.

Unit 16 Lines and Surfaces

Examples of straight lines:

Examples of curves:

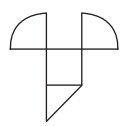
Examples of items with only flat surfaces:

Unit 17 Shapes and Patterns

2-dimensional shapes and objects

Examples of different shapes:

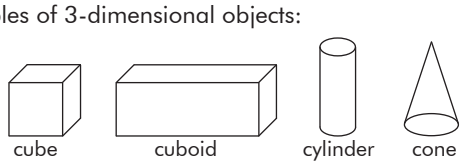
These shapes can be used to create a 2-dimensional figure.



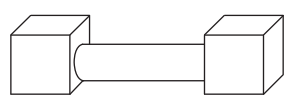
An example of a 2-dimensional figure that is made of 2 quarter circles, a square, and a triangle.

3-dimensional objects

Examples of 3-dimensional objects:



These shapes can be used to create a 3-dimensional figure.

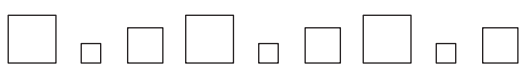


An example of a 3-dimensional figure that is made of 2 cubes and a cylinder.

Patterns

Shapes can be used to create a repeated pattern.
An example of a repeated pattern using different shapes:

An example of a repeated pattern using different sizes:



An example of a repeated pattern using different colors:

Unit 10: MENTAL CALCULATIONS

Examples:

1. What is 69 + 7?

   69 + 10 = 79

   79 – 3 = 76

   69 + 7 = **76**

2. What is 364 + 5?

   364 = 360 + 4

   4 + 5 = 9

   360 + 9 = 369

   364 + 5 = **369**

3. What is 158 + 30?

   158 = 108 + 50

   50 + 30 = 80

   108 + 80 = 188

   158 + 30 = **188**

4. What is 592 + 400?

   592 = 500 + 92

   500 + 400 = 900

   900 + 92 = 992

   592 + 400 = **992**

5. What is 95 – 9?

   95 – 10 = 85

   85 + 1 = 86

   95 – 9 = **86**

6. What is 438 – 60?

   438 – 100 = 338

   338 + 40 = 378

   438 – 60 = **378**

7. What is 247 – 40?

   247 = 207 + 40

   40 – 40 = 0

   207 + 0 = 207

   247 – 40 = **207**

8. What is 689 – 300?

   689 = 600 + 89

   600 – 300 = 300

   300 + 89 = 389

   689 – 300 = **389**

Solve the following addition problems mentally.

1. 64 + 8 = _____
2. 89 + 7 = _____
3. 26 + 5 = _____
4. 18 + 9 = _____
5. 57 + 6 = _____
6. 45 + 8 = _____
7. 37 + 5 = _____
8. 78 + 8 = _____
9. 94 + 9 = _____
10. 56 + 7 = _____
11. 127 + 5 = _____
12. 764 + 9 = _____
13. 262 + 6 = _____
14. 948 + 8 = _____
15. 435 + 7 = _____
16. 584 + 6 = _____
17. 623 + 9 = _____
18. 806 + 9 = _____
19. 366 + 5 = _____
20. 119 + 6 = _____

21. 513 + 6 = _____

22. 836 + 20 = _____

23. 723 + 80 = _____

24. 190 + 70 = _____

25. 428 + 40 = _____

26. 762 + 70 = _____

27. 503 + 90 = _____

28. 869 + 80 = _____

29. 623 + 60 = _____

30. 770 + 200 = _____

31. 323 + 600 = _____

32. 165 + 800 = _____

33. 248 + 500 = _____

34. 657 + 300 = _____

35. 195 + 700 = _____

36. 108 + 200 = _____

37. 588 + 400 = _____

38. 645 + 100 = _____

39. 199 + 600 = _____

40. 756 + 200 = _____

Solve the following subtraction problems mentally.

41. 52 – 5 = _____

42. 46 – 9 = _____

43. 81 – 8 = _____

44. 30 – 7 = _____

45. 88 – 3 = _____

46. 79 – 5 = _____

47. 64 – 4 = _____

48. 28 – 9 = _____

49. 93 – 1 = _____

50. 59 – 7 = _____

51. 620 – 5 = _____

52. 404 – 6 = _____

53. 875 – 4 = _____

54. 740 – 2 = _____

55. 519 – 9 = _____

56. 264 – 7 = _____

57. 329 – 6 = _____

58. 183 – 5 = _____

59. 916 – 3 = _____

60. 534 – 8 = _____

61. 415 – 30 = _____

62. 338 – 90 = _____

63. 587 – 60 = _____

64. 860 – 50 = _____

65. 609 – 10 = _____

66. 281 – 20 = _____

67. 758 – 40 = _____

68. 495 – 70 = _____

69. 164 – 80 = _____

70. 626 – 60 = _____

71. 758 – 300 = _____

72. 834 – 600 = _____

73. 905 – 800 = _____

74. 631 – 500 = _____

75. 978 – 900 = _____

76. 505 – 100 = _____

77. 784 – 400 = _____

78. 435 – 200 = _____

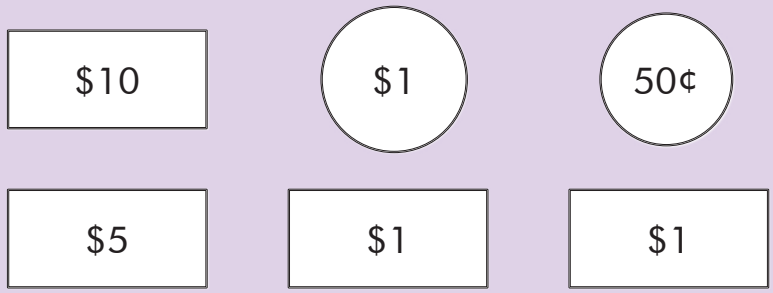
79. 876 – 700 = _____

80. 980 – 800 = _____

Unit 11: MONEY

Examples:

1. Andy receives a sum of money from his parents.
   How much does Andy receive?



   Andy receives **$18.50**.

2. Change $3.95 to cents.

   $3.95 = **395¢**

3. Change 1,000¢ to dollars.

   1,000¢ = **$10.00**

4. Natalie spent $12.60 on food.
   Sammi spent $15.60, and Omar spent $20.90.
   Who spent the most money?

   Among the 3 amounts, $20.90 is the greatest.

   Omar spent the most money.

1. Write the correct amount of money in numerals.

(a) ten dollars _____

(b) two dollars and fifty cents _____

(c) forty-four dollars and forty cents _____

(d) thirty-nine dollars and eighty-five cents _____

(e) sixty-seven dollars and ninety cents _____

(f) fifty dollars and five cents _____

(g) nineteen dollars and seventy cents _____

(h) eighty-seven cents _____

(i) twelve dollars and fifteen cents _____

(j) twenty dollars and twenty-five cents _____

2. Write the amount of money in words.

(a) \$12.30 = _____ dollars and _____ cents

(b) \$45.45 = _____ dollars and _____ cents

(c) \$67.05 = _____ dollars and _____ cents

(d) \$15.55 = _____ dollars and _____ cents

(e) \$ 7.90 = _____ dollars and _____ cents

(f) \$11.80 = _____ dollars and _____ cents

(g) \$36.60 = _____ dollars and _____ cents

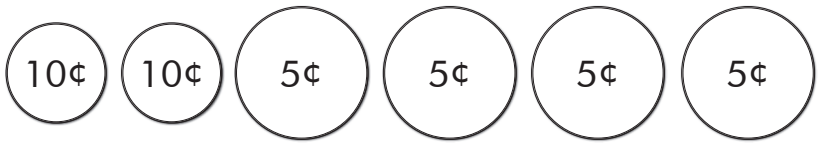
(h) \$20.15 = _____ dollars and _____ cents

(i) \$59.95 = _____ dollars and _____ cents

(j) \$70.70 = _____ dollars and _____ cents

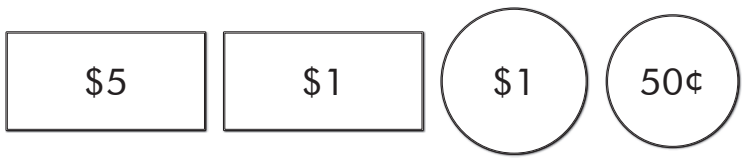
Write the correct amount of money on the lines provided.

3.



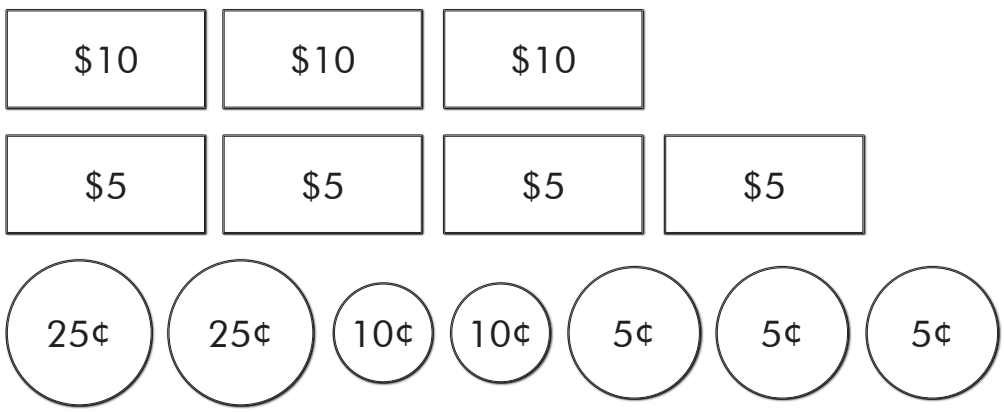
_____¢

4.



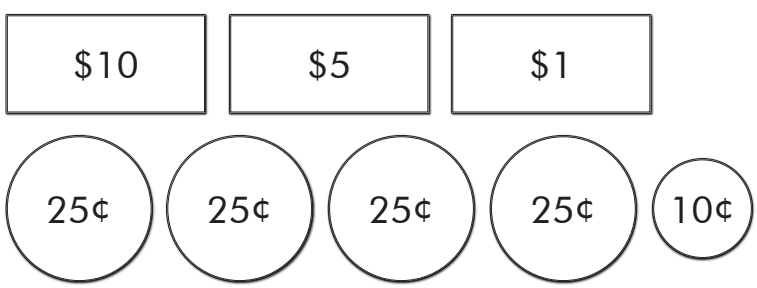
$_____

5.



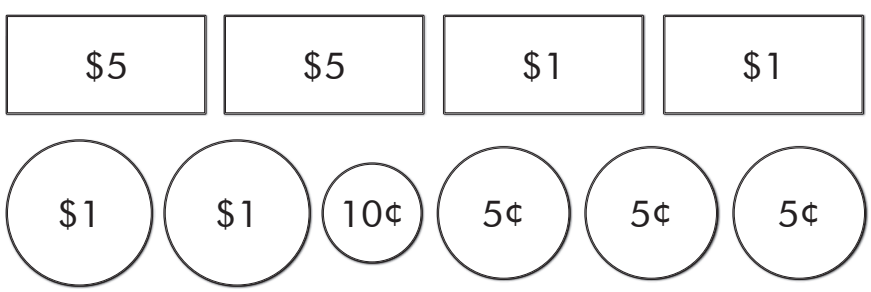
$_____

6.



$_____

7.



$_____

The amount of money each item costs is shown below. Write the correct amount of money on the lines provided.

8.

An eraser costs _____.

9.

A book costs _____.

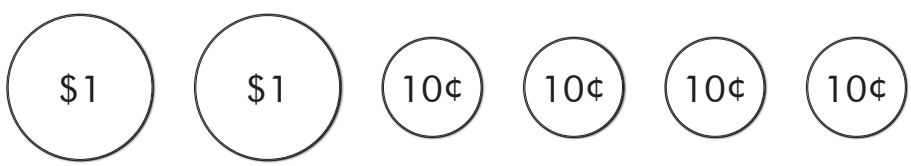
10.

A bag of birdseed costs _____.

11.

A set of colored pencils costs _____.

12.



A notebook costs _____.

13. Write the following amounts in cents.

(a) $2.25 = _____¢

(b) $10.50 = _____¢

(c) $35.75 = _____¢

(d) $50.05 = _____¢

(e) $27.35 = _____¢

(f) $89.05 = _____¢

(g) $100.30 = _____¢

(h) $40.40 = _____¢

(i) $15.95 = _____¢

(j) $20.55 = _____¢

14. Write the following amounts in dollars.

(a) 416¢ = $_____

(b) 1,875¢ = $_____

(c) 3,005¢ = $_____

(d) 805¢ = $_____

(e) 1,750¢ = $_____

(f) 960¢ = $_____

(g) 1,005¢ = $_____

(h) 7,600¢ = $_____

(i) 18¢ = $_____

(j) 59¢ = $_____

Fill in each blank with the correct answer.

15. Christopher spends $26.50 in a week.
George spends $32.50 in a week.

(a) $_____ is more than $_____.

(b) _____ spends more money.

16. Marcos saves $55.85 in a month.
Noelle saves $45.90 in a month.

(a) $_____ is less than $_____.

(b) _____ saves more money.

17. Mrs. Adams has $67.80.
Mrs. Morales has $65.90.

(a) $_____ is more than $_____.

(b) $_____ is less than $_____.

(c) _____ has less money.

18. Samira's weekly allowance is $26.50.
Kate's weekly allowance is $19.60.
Lucy's weekly allowance is $23.25.

(a) $_____ is the smallest amount of money.

(b) $_____ is the largest amount of money.

(c) _____ has the most weekly allowance.

(d) _____ has the least weekly allowance.

Solve the following story problems. Show your work in the space below.

19. A book costs $3. Malia bought 6 books. How much did she pay for the books?

She paid _____ for the books.

20. A peach costs 55¢. A banana costs 25¢ less than the peach. What is the total cost of the peach and the banana?

The total cost of the peach and the banana is _____.

21. Aunt Rose earns $350 in a week. Uncle James earns $190 more per week than Aunt Rose. How much money do both of them earn in a week?

Both of them earn _____ in a week.

22. Gina bought a doll for $29. She gave the cashier $100. How much change did she receive?

She received _____ in change.

23. Mr. Singh gives his son $40 every 10 days. If his son spends an equal amount of money every day, how much money does he spend per day?

He spends _____ per day.

REVIEW 5

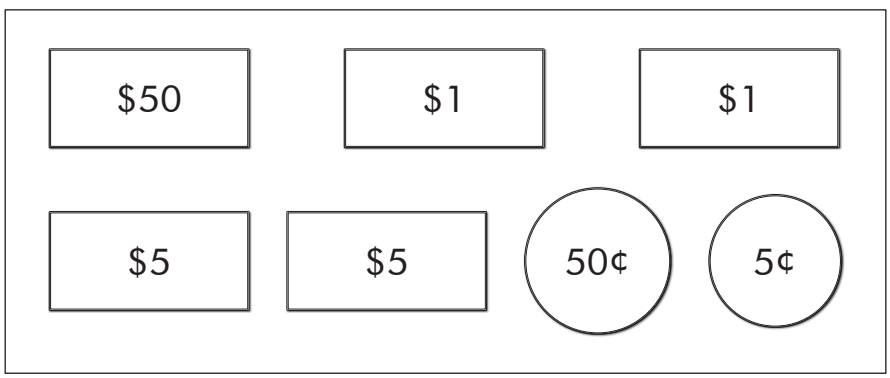
Fill in each blank with the correct answer.

1. Write ninety-nine dollars and nine cents in numerals. _____

2. Add 814 and 90 mentally. _____

3. $55.15 = _____ dollars and _____ cents

4. How much money is shown below?



_____

5. Write $62.85 in cents. _____

6. Add 604 and 200 mentally. _____

7. Grace has $30.05. Jerome has $35.55.

   (a) $_____ is more than $_____.

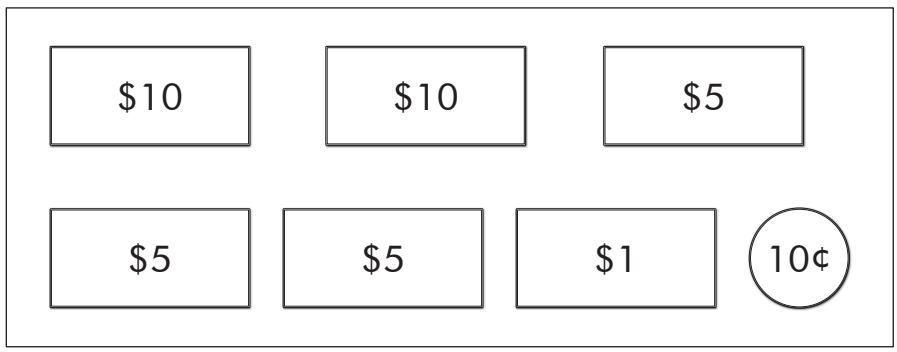
   (b) _____ has more money.

8. Subtract 9 from 546 mentally. _____

9. Write 3,840¢ in dollars. _____

10. Subtract 60 from 743 mentally. _____

11.



A purse costs _____.

12. Uncle Sam pays $45 for a bouquet of roses.
Uncle Rafael pays $42 for a bouquet of sunflowers.

(a) $_____ is less than $_____.

(b) _____ pays more for the flowers.

13. $100.10 = _____ dollars and _____ cents

14. Add 5 and 686 mentally. _____

15. Subtract 400 from 712 mentally. _____

Solve the following story problems. Show your work in the space below.

16. Emma saves $2 each day. How much money does she save in a week?

Emma saves _____ in a week.

17. Samantha bought a calculator. She gave the cashier $50 and received $2 in change. How much did the calculator cost?

The calculator cost _____.

18. Vera bought a dress for $49. She bought a shirt for $35. How much money did she spend in all?

She spent _____ in all.

19. Uncle Ronald gives some money to his 3 children. Each child receives $7. How much money does Uncle Ronald give to his children in all?

Uncle Ronald gives _____ to his children in all.

20. Natasha pays $60 for 6 identical towels. How much does each towel cost?

Each towel costs _____.

Unit 12: FRACTIONS

Examples:

1. Arrange $\frac{3}{7}$, $\frac{1}{7}$, and $\frac{5}{7}$ in order, beginning with the smallest.

$\underbrace{\frac{1}{7}, \quad \frac{3}{7},}_{\text{smallest}} \quad \frac{5}{7}$

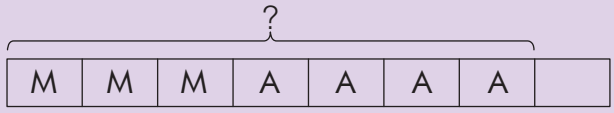
2. Add $\frac{2}{9}$ and $\frac{5}{9}$.

$\frac{2}{9} + \frac{5}{9} = \frac{7}{9}$

3. What is $1 - \frac{5}{6}$?

$1 - \frac{5}{6} = \frac{6}{6} - \frac{5}{6} = \frac{1}{6}$

4. Lexi used $\frac{3}{8}$ of the butter in the morning. She used $\frac{4}{8}$ of the butter in the afternoon. What fraction of the butter did Lexi use altogether?

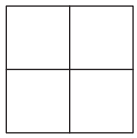


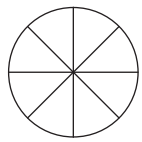
M: Morning
A: Afternoon

$\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$

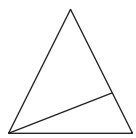
Lexi used $\frac{7}{8}$ of the butter altogether.

Put a check mark (✓) in the box if the shape is divided into equal parts.

1. 

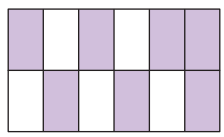
3. 

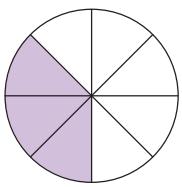
2. 

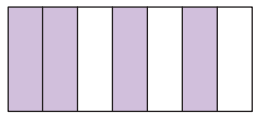
4. 

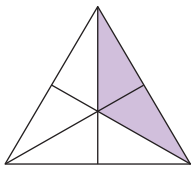
What fraction of each figure is shaded? Write the correct answer on the line.

5.  _____

8.  _____

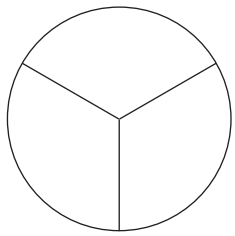
6.  _____

9.  _____

7.  _____

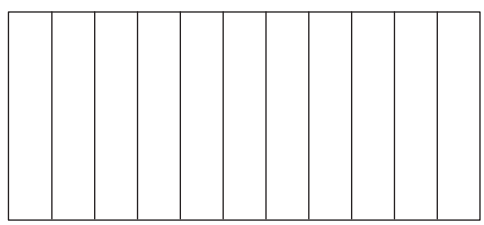
Shade the parts of each figure to show the correct fractions.

10. $\frac{2}{3}$

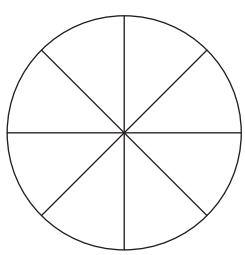


11. $\frac{4}{9}$

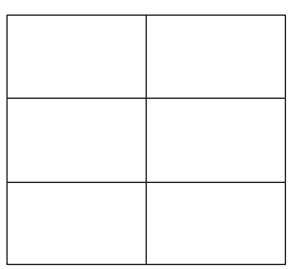
12. $\frac{5}{11}$



13. $\frac{6}{8}$

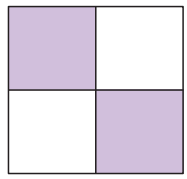


14. $\frac{5}{6}$



Fill in each blank with the correct answer.

15.



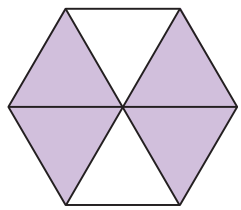
(a) _____ parts of the figure are shaded.

(b) There are _____ equal parts altogether.

(c) _____ of the figure is shaded.

(d) _____ of the figure is not shaded.

16.



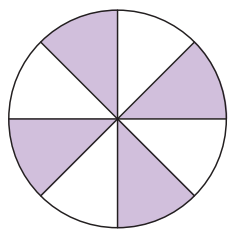
(a) _____ parts of the figure are shaded.

(b) There are _____ equal parts altogether.

(c) The fraction of the figure that is shaded is _____.

(d) The fraction of the figure that is not shaded is _____.

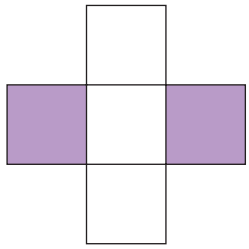
17.



(a) _____ out of _____ equal parts are shaded.

(b) _____ of the figure is shaded.

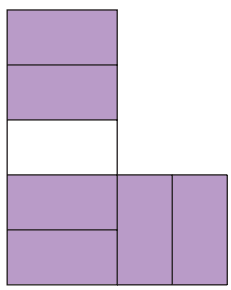
18.



(a) _____ out of _____ equal parts are shaded.

(b) _____ of the figure is shaded.

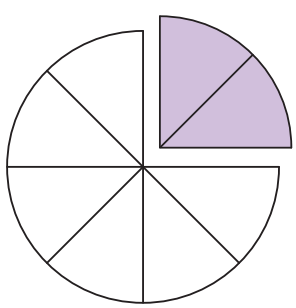
19.



(a) _____ out of _____ equal parts are shaded.

(b) _____ of the figure is shaded.

20. Lisa cuts a cake into 8 equal parts. Her brother eats 2 parts.



(a) _____ parts of the cake are left.

(b) The fraction of the cake that her brother eats is _____.

(c) The fraction of the cake left is _____.

(d) _____ and _____ make a whole.

21. Hiroshi cuts a loaf of bread into 5 equal parts. He eats 3 parts.

(a) _____ parts of the bread are left.

(b) The fraction of the bread that Hiroshi eats is _____.

(c) The fraction of the bread left is _____.

(d) _____ and _____ make a whole.

Fill in each blank with the correct answer.

22. _____ and $\frac{1}{3}$ make a whole.

23. _____ and $\frac{1}{2}$ make a whole.

24. $\frac{3}{7}$ and _____ make a whole.

25. _____ and $\frac{4}{11}$ make a whole.

26. _____ and $\frac{9}{12}$ make a whole.

27. $\frac{2}{5}$ and _____ make a whole.

28. $\frac{6}{8}$ and _____ make a whole.

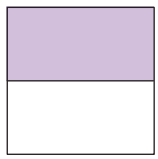
29. $\frac{3}{9}$ and _____ make a whole.

30. _____ and $\frac{1}{4}$ make a whole.

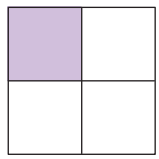
31. _____ and $\frac{1}{6}$ make a whole.

Circle the larger fraction in each pair.

32.

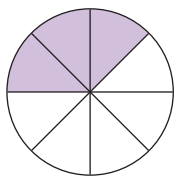


$\frac{1}{2}$

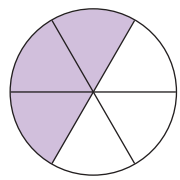


$\frac{1}{4}$

33.

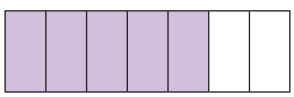


$\frac{3}{8}$

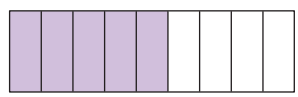


$\frac{3}{6}$

34.



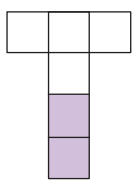
$\frac{5}{7}$



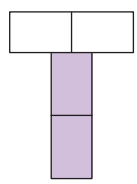
$\frac{5}{9}$

Circle the smaller fraction in each pair.

35.

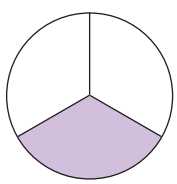


$\frac{2}{6}$

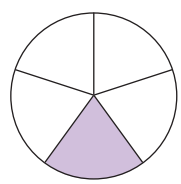


$\frac{2}{4}$

36.

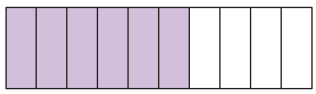


$\frac{1}{3}$

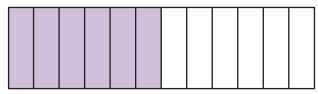


$\frac{1}{5}$

37.



$\frac{6}{10}$

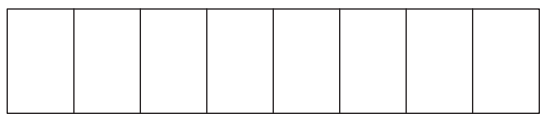


$\frac{6}{12}$

Color the correct part(s) of each figure to show the fractions. Then, circle the largest fraction in each set.

38.

$\frac{1}{8}$

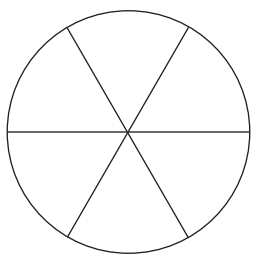


$\frac{3}{8}$

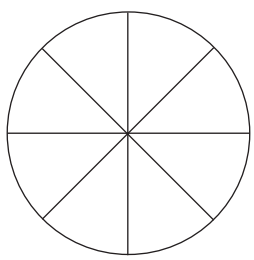
$\frac{5}{8}$

39.

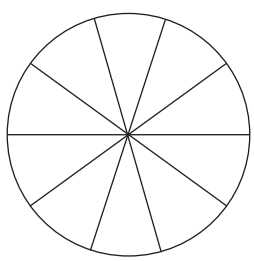
$\frac{2}{6}$



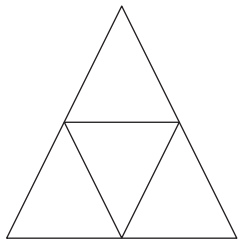
$\frac{2}{8}$



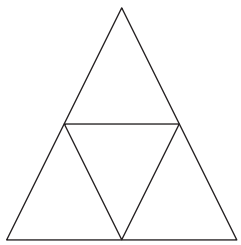
$\frac{2}{10}$



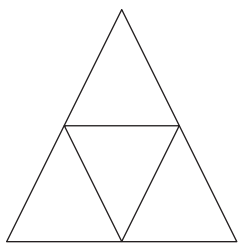
40. $\frac{1}{4}$



$\frac{2}{4}$

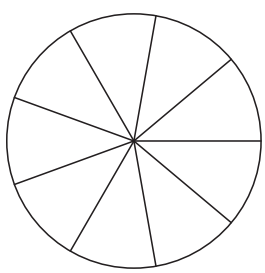


$\frac{3}{4}$

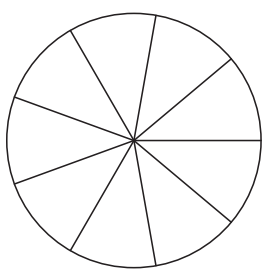


Color the part(s) of each figure to show the fractions. Then, circle the smaller fraction in each pair.

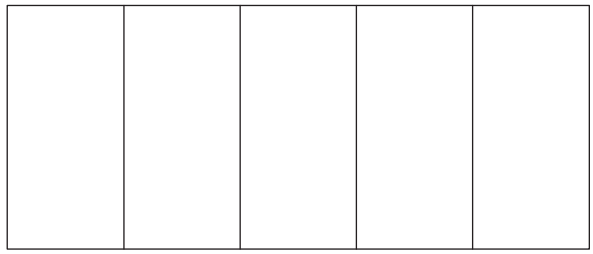
41. $\frac{3}{9}$



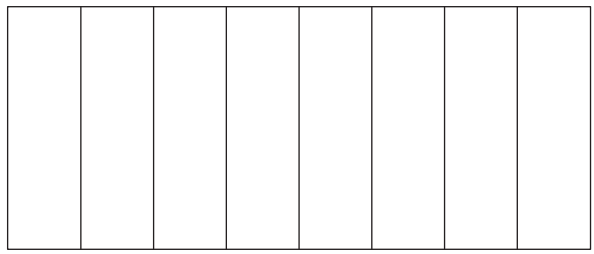
$\frac{2}{9}$



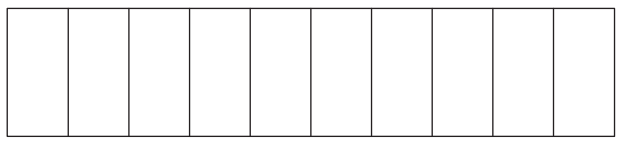
42. $\frac{4}{5}$



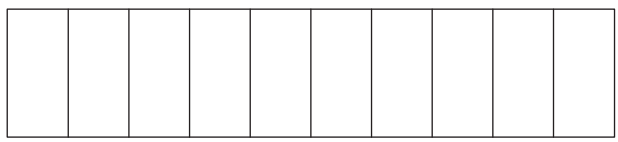
$\frac{4}{8}$



43. $\frac{8}{10}$



$\frac{6}{10}$



Circle the smaller fraction in each pair.

44. $\frac{1}{5}$ $\frac{1}{3}$

45. $\frac{2}{6}$ $\frac{2}{8}$

46. $\frac{4}{8}$ $\frac{3}{8}$

Circle the larger fraction in each pair.

47. $\frac{2}{3}$ $\frac{1}{3}$

48. $\frac{4}{8}$ $\frac{4}{5}$

49. $\frac{7}{10}$ $\frac{7}{11}$

Circle the largest fraction in each set.

50. $\frac{3}{5}$ $\frac{4}{5}$ $\frac{5}{5}$

51. $\frac{1}{10}$ $\frac{1}{11}$ $\frac{1}{12}$

52. $\frac{5}{7}$ $\frac{5}{8}$ $\frac{5}{9}$

Circle the smallest fraction in each set.

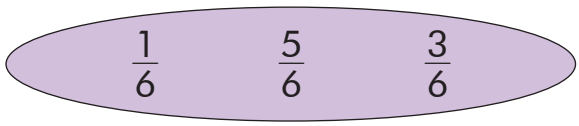
53. $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$

54. $\frac{7}{7}$ $\frac{4}{7}$ $\frac{5}{7}$

55. $\frac{5}{9}$ $\frac{6}{9}$ $\frac{3}{9}$

Arrange the fractions in each set. Begin with the largest.

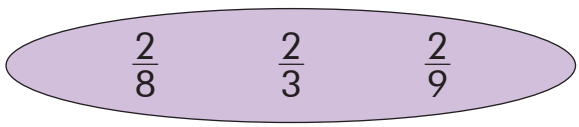
56.



_____, _____, _____

largest

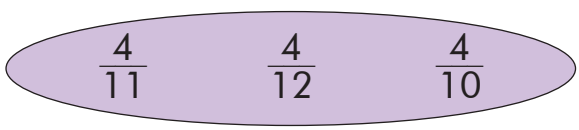
57.



_____, _____, _____

largest

58.

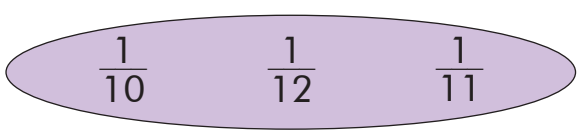


_____, _____, _____

largest

Arrange the fractions in each set. Begin with the smallest.

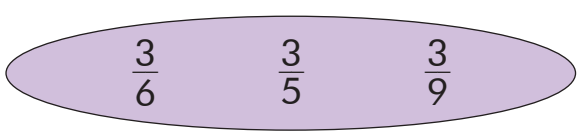
59.



_____, _____, _____

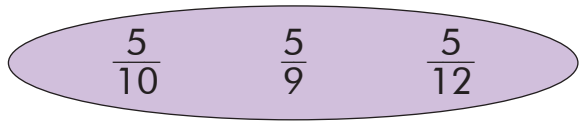
smallest

60.



_____, _____, _____

smallest

61. 

_____, _____, _____
smallest

Add these fractions.

62. $\frac{1}{8} + \frac{2}{8} =$ _____

63. $\frac{1}{10} + \frac{6}{10} =$ _____

64. $\frac{3}{12} + \frac{7}{12} =$ _____

65. $\frac{2}{7} + \frac{4}{7} =$ _____

66. $\frac{1}{9} + \frac{5}{9} + \frac{2}{9} =$ _____

67. $\frac{1}{5} + \frac{2}{5} + \frac{1}{5} =$ _____

68. $\frac{2}{6} + \frac{1}{6} + \frac{1}{6} =$ _____

69. $\frac{2}{11} + \frac{1}{11} + \frac{3}{11} =$ _____

Subtract these fractions.

70. $\frac{3}{4} - \frac{1}{4} =$ _____

71. $\frac{5}{9} - \frac{3}{9} =$ _____

72. $\frac{6}{7} - \frac{1}{7} =$ _____

73. $1 - \frac{1}{10} =$ _____

74. $\frac{5}{6} - \frac{1}{6} - \frac{2}{6} =$ _____

75. $\frac{10}{11} - \frac{3}{11} - \frac{4}{11} =$ _____

76. $\frac{6}{8} - \frac{1}{8} - \frac{2}{8} =$ _____

77. $\frac{10}{12} - \frac{2}{12} - \frac{5}{12} =$ _____

Solve the following story problems. Show your work in the space below.

78. Benny cuts a loaf of bread into 5 parts. His sister eats 2 pieces of the bread. What fraction of the bread is left?

_____ of the bread is left.

79. Mom eats $\frac{1}{10}$ of a pizza. Dad eats $\frac{3}{10}$ of the pizza. Kaylee eats $\frac{1}{10}$ of the pizza. What fraction of the pizza have they eaten?

They have eaten _____ of the pizza.

80. Ileana used $\frac{1}{7}$ of her weekly allowance to buy a pencil case. She used another $\frac{3}{7}$ of it to buy some drawing materials. What fraction of her weekly allowance did she use?

She used _____ of her weekly allowance.

81. Aunt Carol made a pitcher of orange juice. Her children drank $\frac{3}{8}$ of the orange juice. What fraction of the pitcher of orange juice was left?

_____ of the pitcher of orange juice was left.

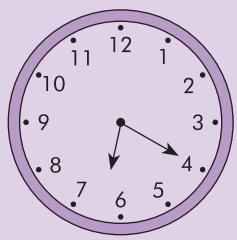
82. $\frac{1}{6}$ of the people at a party are children. $\frac{3}{6}$ of the people are women. The remaining people are men. What fraction of the people at the party are children and women?

_____ of the people at the party are children and women.

Unit 13: TIME

Examples:

1. Write the time shown on the clock.



The time is **6:20**.

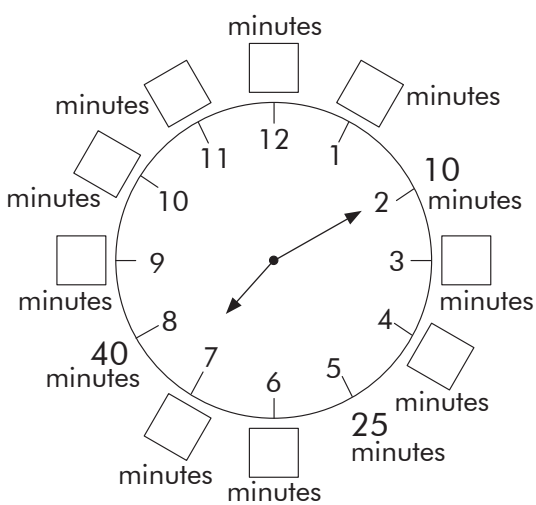
2. Kelly eats her lunch 1 hour after noon. Write A.M. or P.M. in the blank.

She eats her lunch at 1:00 **P.M.**

3. Henry took a bus to the zoo at 11:00 A.M. He reached the zoo 30 minutes later. At what time did he reach the zoo?

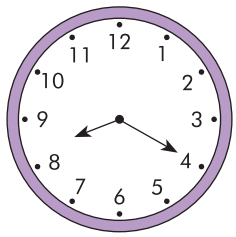
He reached the zoo at **11:30 A.M.**

1. Look at the clock below. Fill in each box with the correct answer.

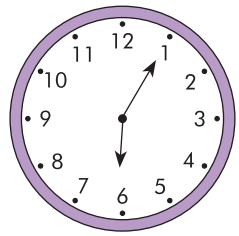


The time shown on the clock is _____ A.M.

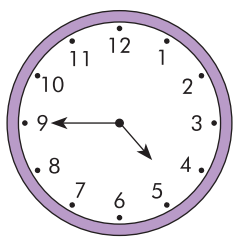
What time is it? Write the correct minutes on the lines below.

2. 

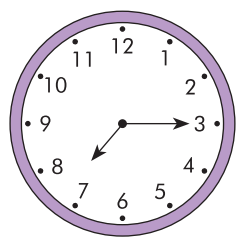
_____ minutes after 8 o'clock

4. 

_____ minutes after 6 o'clock

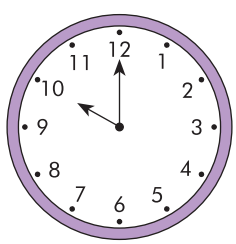
3. 

_____ minutes after 4 o'clock

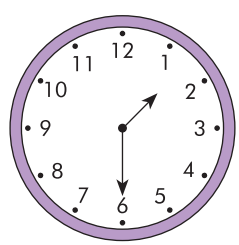
5. 

_____ minutes after 7 o'clock

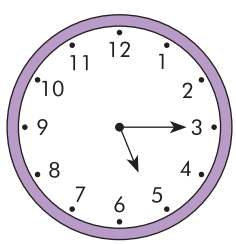
Write the correct time on the lines below.

6. 

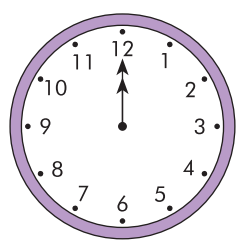
The time is _____.

8. 

The time is _____.

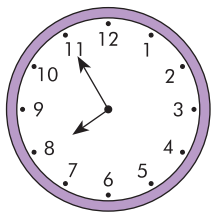
7. 

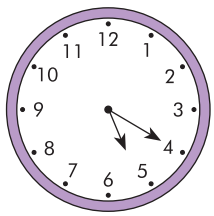
The time is _____.

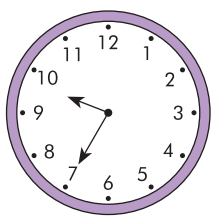
9. 

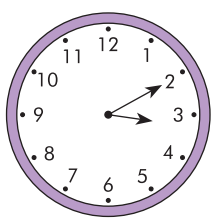
The time is _____.

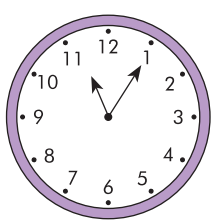
Match each clock to the correct time.

10. 

11. 

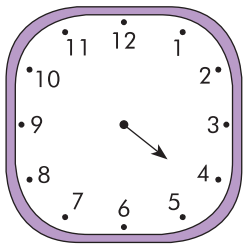
12. 

13. 

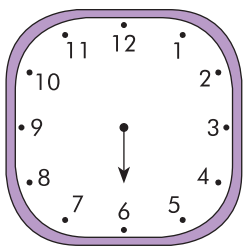
14. 

- 3:10
- 5:20
- 9:35
- 11:05
- 7:55

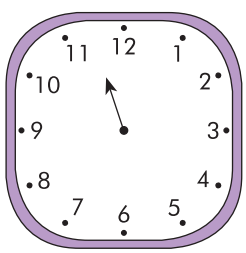
Draw the minute hand on each clock.

15. 

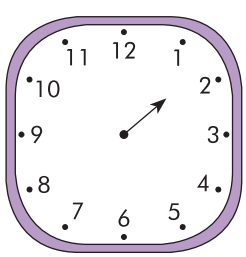
The time is 4:15.

16. 

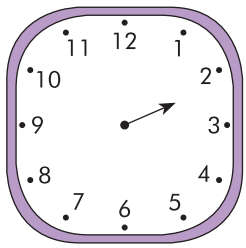
The time is 6:00.

17. 

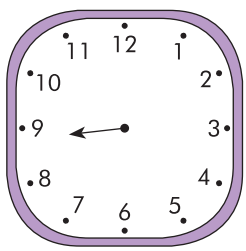
The time is 11:30.

18. 

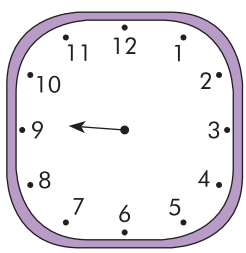
The time is 1:45.

19. 

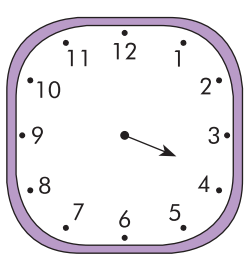
The time is 2:10.

20. 

The time is 8:55.

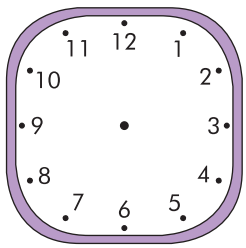
21. 

The time is 9:05.

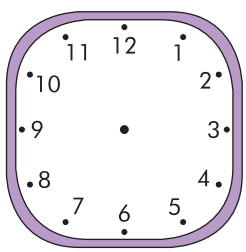
22. 

The time is 3:50.

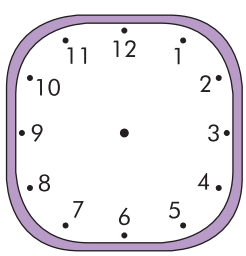
Read the time, and draw the hour and minute hands on each clock.

23. 

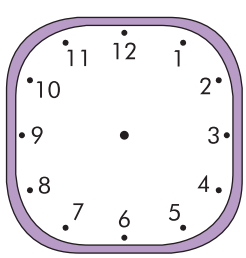
The time is 1:20.

24. 

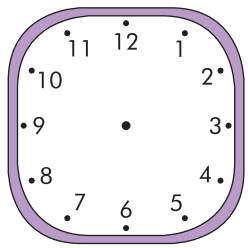
The time is 10:30.

25. 

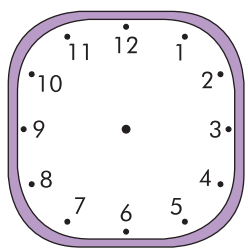
The time is 11:15.

26. 

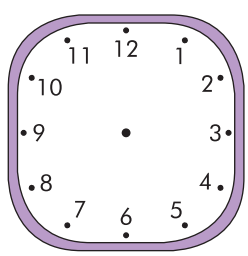
The time is 3:55.

27. 

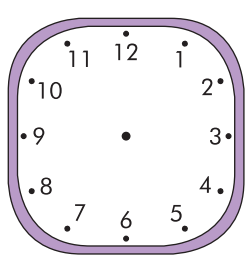
The time is 5:00.

28. 

The time is 9:25.

29. 

The time is 6:45.

30. 

The time is 7:10.

Fill in each blank with *A.M.* or *P.M.*

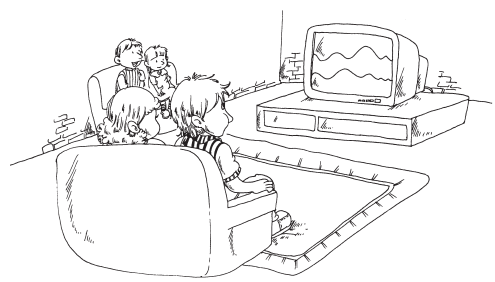
31. Pilar eats her breakfast at 8:00 _____.

32. The class will end at 12:50 _____.

33. Claire likes to take her dog for a walk after dinner. She usually gets home at 9:00 _____.

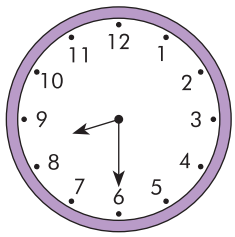
34. Mrs. Thomas goes to the grocery store after preparing breakfast. She leaves her house at 10:00 _____.

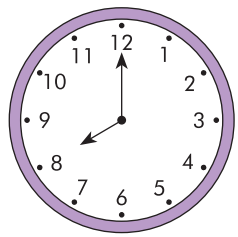
35. Braden and his family enjoy watching the evening news. The news will start at 9:30 _____.



Fill in each blank with the correct answer.

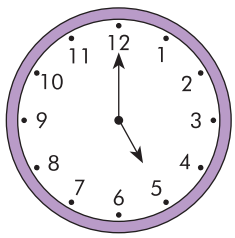
36.

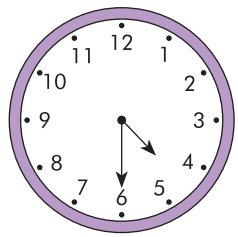




_____ is 30 min. after _____

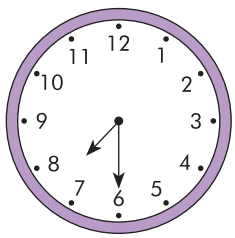
37.

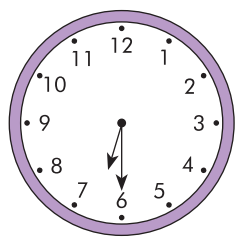




_____ is 30 min. after _____

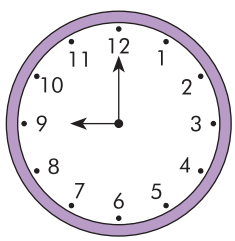
38.

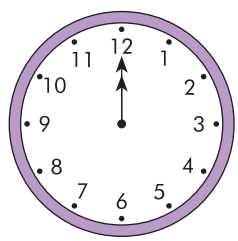




_____ is 1 hr. after _____

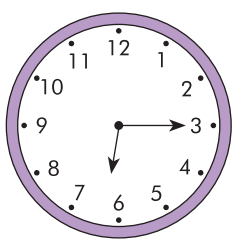
39.

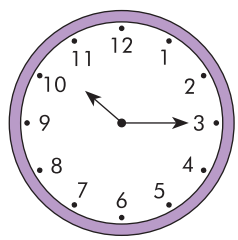




_____ is 3 hr. before _____

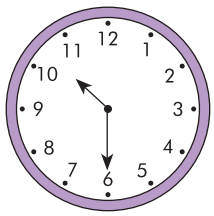
40.

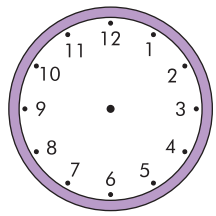




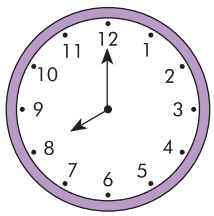
_____ is 4 hr. before _____

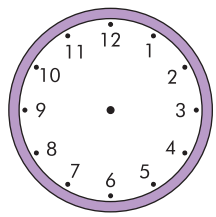
Draw the time on each clock. Fill in each blank with the correct answer.

41. 

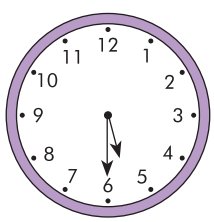


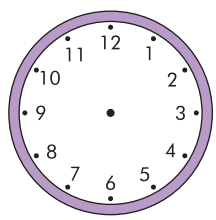
10:30 A.M. is 30 min. before _____.

42. 

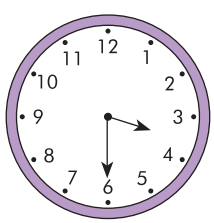


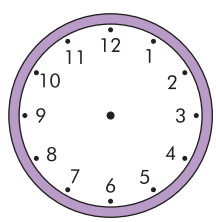
8:00 P.M. is 1 hr. after _____.

43. 

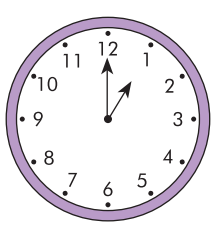


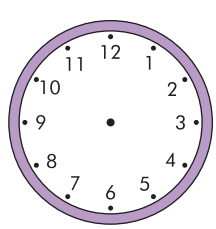
5:30 A.M. is 30 min. after _____.

44. 



3:30 P.M. is 30 min. before _____.

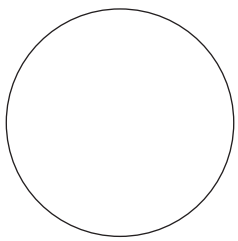
45. 

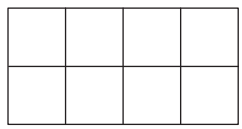


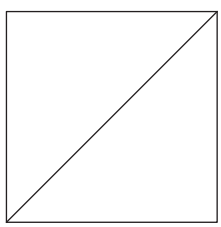
1:00 P.M. is 1 hr. after _____.

REVIEW 6

1. Which of the following are fractions? Put a check mark (✓) in the correct boxes.

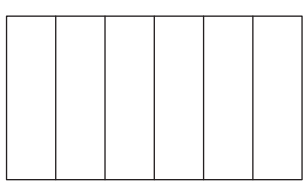
(a) 

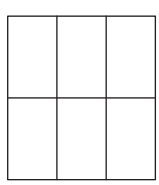
(c) 

(b) 

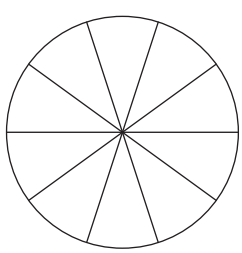
Shade the parts of each figure to show the fractions.

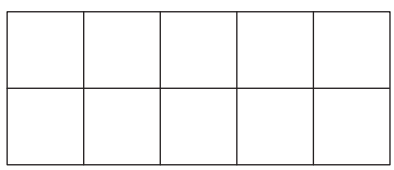
2. $\frac{5}{6}$



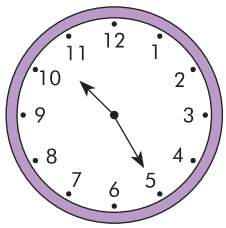


3. $\frac{6}{10}$

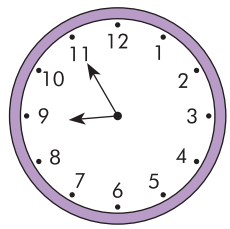




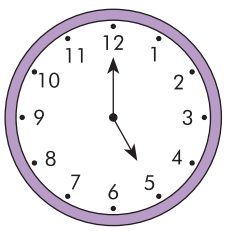
Write the correct times on the lines below.

4. 

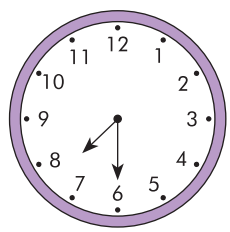
_____

6. 

_____

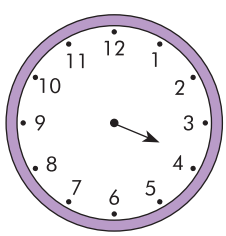
5. 

_____

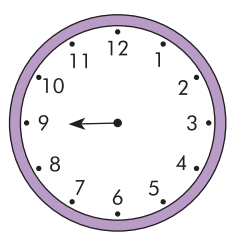
7. 

_____

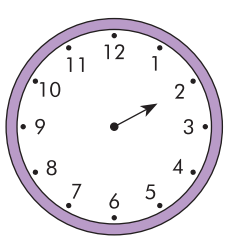
Draw the minute hand on each clock to show the correct time.

8. 

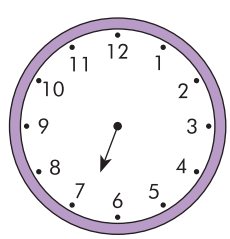
3:45

10. 

9:00

9. 

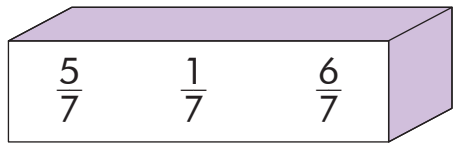
2:15

11. 

6:50

Arrange the fractions in each set. Begin with the largest.

12.

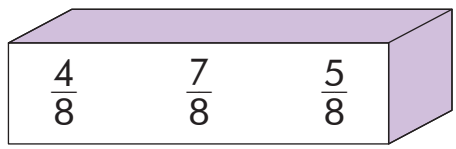


_____, _____, _____

largest

Arrange the fractions in each set. Begin with the smallest.

13.

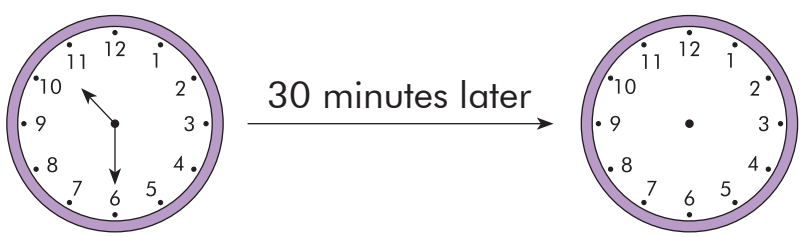


_____, _____, _____

smallest

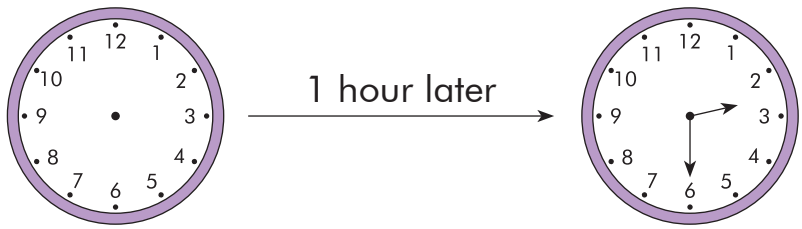
Draw the time on each clock. Fill in each blank with the correct answer.

14. Mary left her house at 10:30 A.M. 30 minutes later, she reached her school. At what time did Mary reach her school?



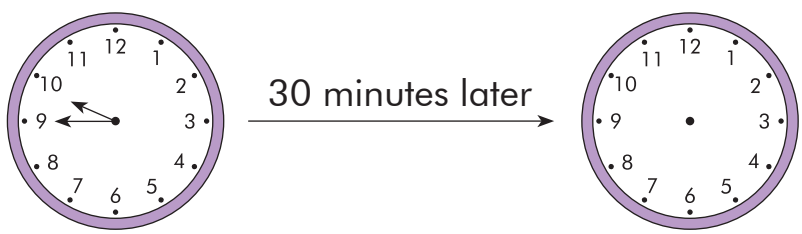
Mary reached her school at _____.

15. Leo has a guitar lesson every Saturday. His lesson lasts 1 hour. If his guitar lesson ends at 2:30 P.M., at what time does it start?



His guitar lesson starts at _____.

16. All the Grade 1 and 2 students have recess at 9:45 A.M. Recess ends 30 minutes later. At what time does recess end?



Recess ends at _____.

Do the following story problems. Show your work in the space below.

17. Anton and Jack shared a dish of nachos. If Anton ate $\frac{1}{2}$ of it, how much did Jack eat?

Jack ate _____ of the dish of nachos.

18. Deepak ate $\frac{2}{6}$ of a melon. John ate $\frac{3}{6}$ of the melon. What fraction of the melon did they eat?

They ate _____ of the melon.

19. Harry poured a glass of milk. He drank $\frac{4}{7}$ of it. What fraction of the milk was left in the glass?

_____ of the milk was left in the glass.

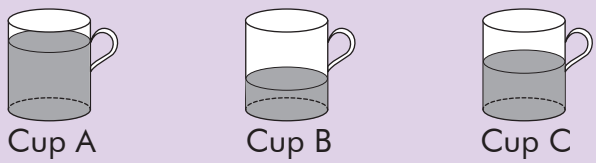
20. Tariq borrows a book from the library. He reads $\frac{2}{5}$ of it. What fraction of the book does Tariq need to read in order to complete it?

Tariq needs to read _____ of the book in order to complete it.

Unit 14: VOLUME

Examples:

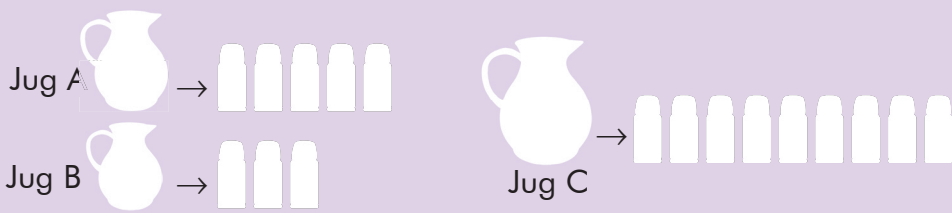
1.



(a) Which cup contains the most water? **Cup A**

(b) Which cup contains the least water? **Cup B**

2.



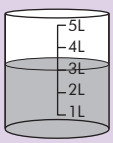
(a) Which jug contains the least water? **Jug B**

(b) Which jug contains the most water? **Jug C**

(c) How many fewer flasks of water can Jug A hold than Jug C? 9 – 5 = **4**

(d) How many more flasks of water can Jug C hold than Jug B? 9 – 3 = **6**

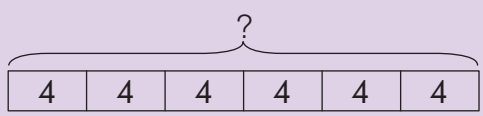
3.



How many liters of water does the container hold?

The container holds **3** liters of water.

4. Uncle Norman filled 6 fish tanks with water. Each fish tank contained 4 gallons of water. How many gallons of water did Uncle Norman use to fill the fish tanks?

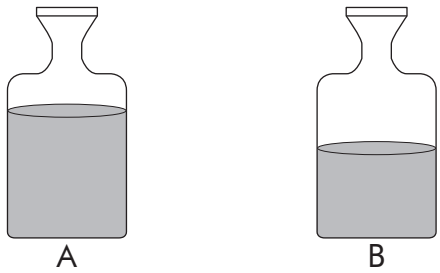


6 x 4 = 24

Uncle Norman used **24** gallons of water to fill the fish tanks.

Fill in each blank with *more* or *less*.

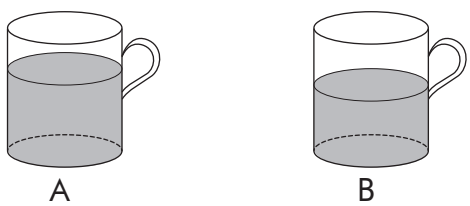
1.



(a) Bottle A contains _____ water than Bottle B.

(b) Bottle B contains _____ water than Bottle A.

2.

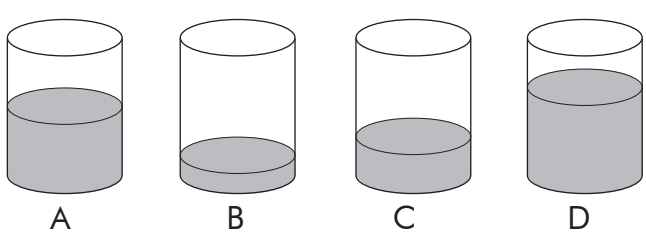


(a) Cup B contains _____ water than Cup A.

(b) Cup A contains _____ water than Cup B.

Fill in each blank with the correct answer.

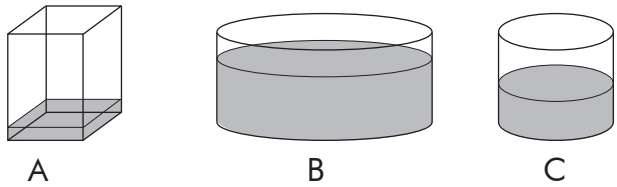
3.



(a) Container _____ has the greatest volume of water.

(b) Container _____ has the least volume of water.

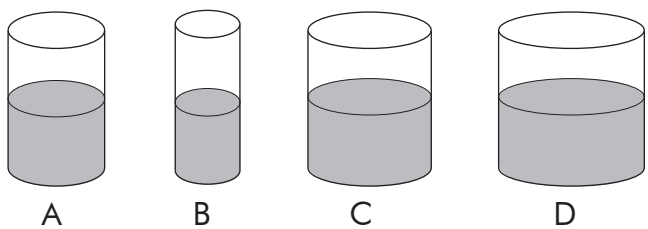
4.



(a) Container _____ has the greatest volume of water.

(b) Container _____ has the least volume of water.

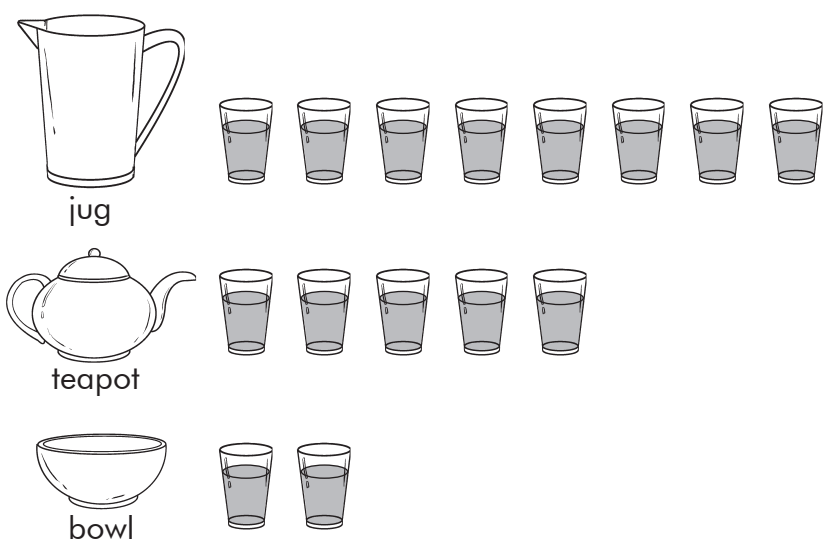
5.



(a) Container _____ has the greatest volume of water.

(b) Container _____ has the least volume of water.

6. Study the pictures carefully. Fill in each blank with the correct answer.



(a) The _____ holds the greatest volume of water.

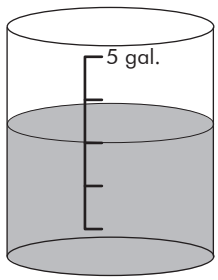
(b) The _____ holds the least volume of water.

(c) The teapot holds _____ more glasses of water than the bowl.

(d) The bowl holds _____ fewer glasses of water than the jug.

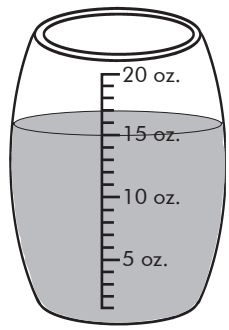
Write the volume of water in each container on the lines below.

7.



_____ gal. of water

9.

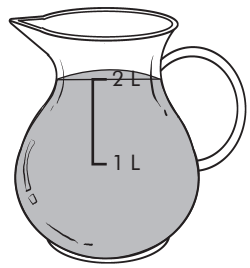


_____ oz. of water

8.

_____ L of water

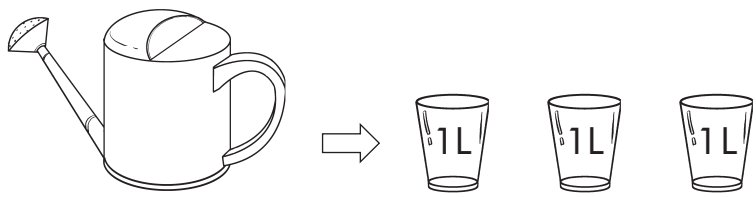
10.



_____ L of water

Look at each picture carefully. Fill in the blanks with the correct answers.

11.

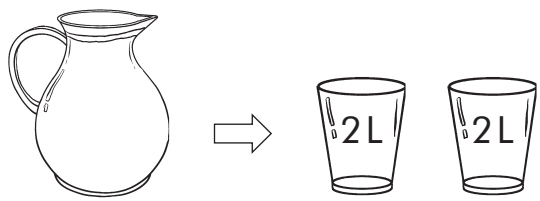


Thomas used _____ L of water to water his plants.

12.

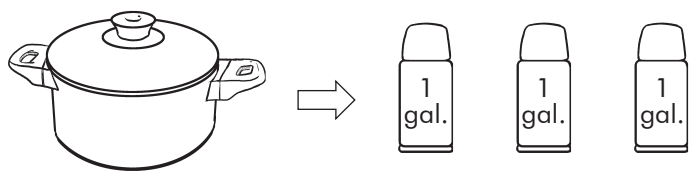
Josefina used _____ gal. of water to wash laundry.

13.



Amy makes _____ L of iced tea.

14.



Mother makes _____ gal. of soup.

Solve the following story problems. Show your work in the space below.

15. Lily fills an empty fish tank with 2 buckets of water. Each bucket can hold 2 gal. of water. How many gallons of water are in the fish tank?

There are _____ gal. of water in the fish tank.

16. Mrs. Simon prepares 3 L of iced tea. Mrs. Suzuki prepares 5 L of lemonade. How many liters of drinks do they prepare altogether?

They prepare _____ L of drinks altogether.

17. Darius fills an empty tank with 4 gal. of water. Jack adds 3 gal. of water. Diego adds another 5 gal. of water. How much water can the tank hold?

The tank can hold _____ gal. of water.

18. Ayesha buys 8 L of orange juice. She gives 2 L of juice to Jane. How much orange juice does Ayesha have left?

Ayesha has _____ L of orange juice left.

19. Mr. Benson filled his car with 10 gal. of gas on Monday. He filled his car with 20 gal. of gas on Thursday. How many gallons of gas in all did Mr. Benson put in his car?

Mr. Benson put _____ gal. of gas in his car in all.

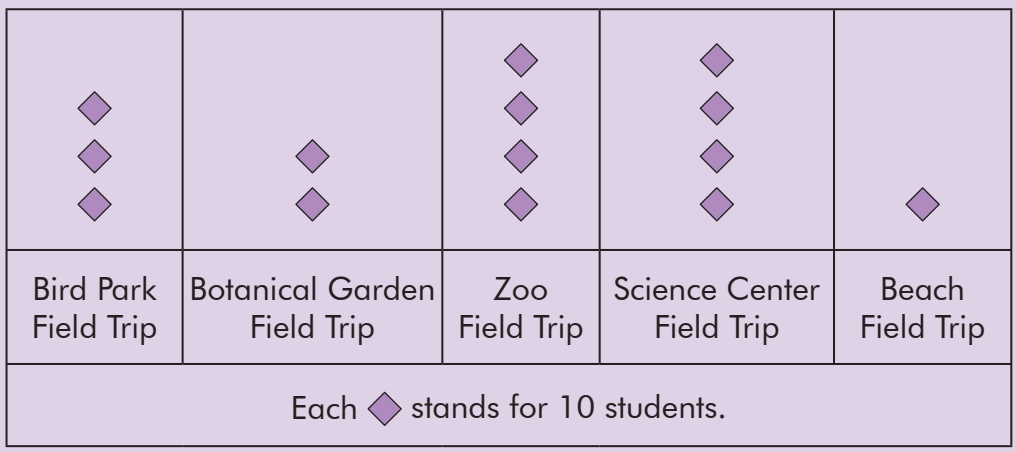
20. Maddy fills an empty container with 16 L of water. She then pours all the water equally into some jugs. Each jug holds 4 L of water. How many jugs does she use?

She uses _____ jugs.

Unit 15: GRAPHS

Examples:

The graph below shows the number of students in a class who went on different field trips throughout the year.



(a) How many students went on the zoo field trip? 4 x 10 = **40**

(b) How many students went on the beach field trip? 1 x 10 = **10**

(c) How many more students went on the zoo field trip than the bird park field trip?

4 – 3 = 1

1 x 10 = **10**

(d) How many fewer students went on the beach field trip than the botanical garden field trip?

2 – 1 = 1

1 x 10 = **10**

(e) How many students went on all the field trips throughout the year?

3 + 2 + 4 + 4 + 1 = 14

14 x 10 = **140**

1. Angelo and Michael went to the zoo and saw these animals.
They drew a picture graph to show the number of each animal.

Animals in the zoo

Monkeys	★ ★ ★ ★ ★ ★
Lions	★ ★
Giraffes	★ ★ ★ ★
Zebras	★ ★ ★
Snakes	★ ★ ★
Each ★ stands for 4 animals.	

(a) They saw _____ giraffes.

(b) They saw _____ monkeys.

(c) They saw _____ more giraffes than lions.

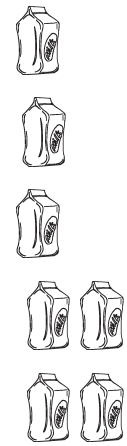
(d) They saw _____ fewer snakes than monkeys.

(e) They saw the most _____.

(f) They saw the fewest _____.

2. Study the picture graph carefully. Fill in each blank with the correct answer.

Cartons of milk sold in a week

Monday	Tuesday	Wednesday	Thursday	Friday
				

(a) The most cartons of milk were sold on _____.

(b) 50 cartons of milk were sold on Tuesday.

Each  stands for _____ carton(s) of milk.

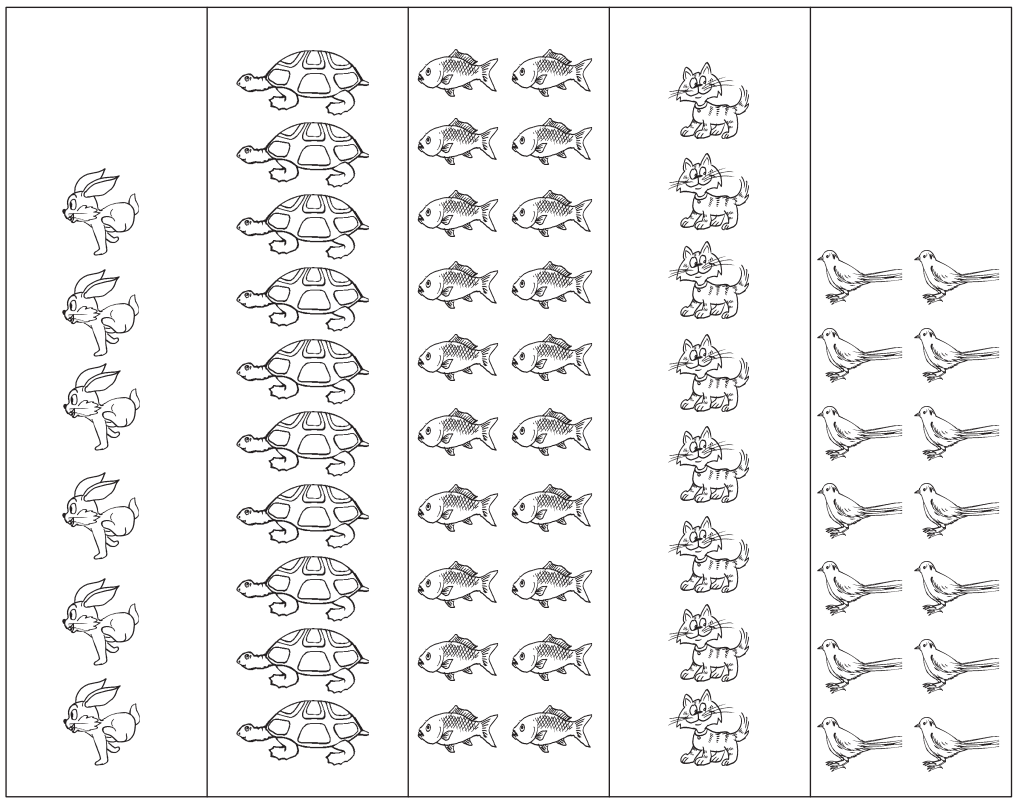
(c) _____ cartons of milk were sold on Friday.

(d) _____ more cartons of milk were sold on Thursday than on Friday.

(e) _____ fewer cartons of milk were sold on Monday than on Friday.

(f) _____ cartons of milk were sold on Tuesday and Thursday.

3. Below is a chart that shows the animals that Aiden's classmates keep as pets.

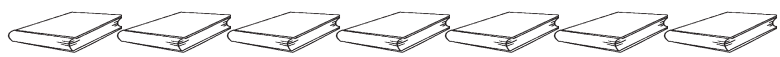


Help Aiden complete the picture graph below.

Rabbits	Turtles	Fish	Cats	Birds
Each ☆ stands for 2 pets.				

4. Study the picture graph below. Fill in each blank with the correct answer.

Number of books sold in a bookstore

Comic	
Fairytale	
Fiction	
Coloring	
	Each  stands for 4 books.

(a) _____ books were the most popular.

(b) _____ books were the least popular.

(c) 4 fewer fairytale books were sold than _____ books.

(d) _____ more comic books were sold than fiction books.

(e) _____ fewer comic books were sold than coloring books.

5. Study the picture graph below. Fill in each blank with the correct answer.

Number of people at the movies

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Each stands for 5 people.	

(a) _____ people went to the movies on Wednesday.

(b) _____ more people went to the movies on Friday than on Tuesday.

(c) 2 children went to the movies on Monday. There were _____ adults at the movies on Monday.

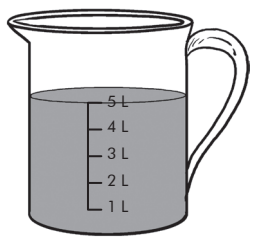
(d) _____ people went to the movies over the weekend.

(e) 16 adults went to the movies on Thursday. There were _____ children at the movies on Thursday.

REVIEW 7

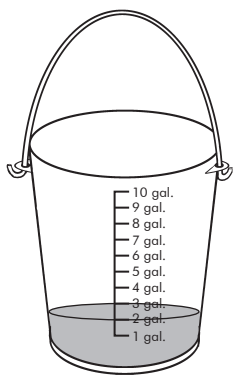
Write the volume of water in each container on the lines below.

1.



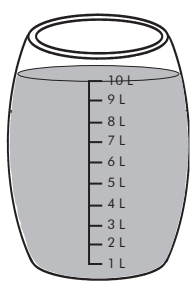
_____ L of water

2.



_____ gal. of water

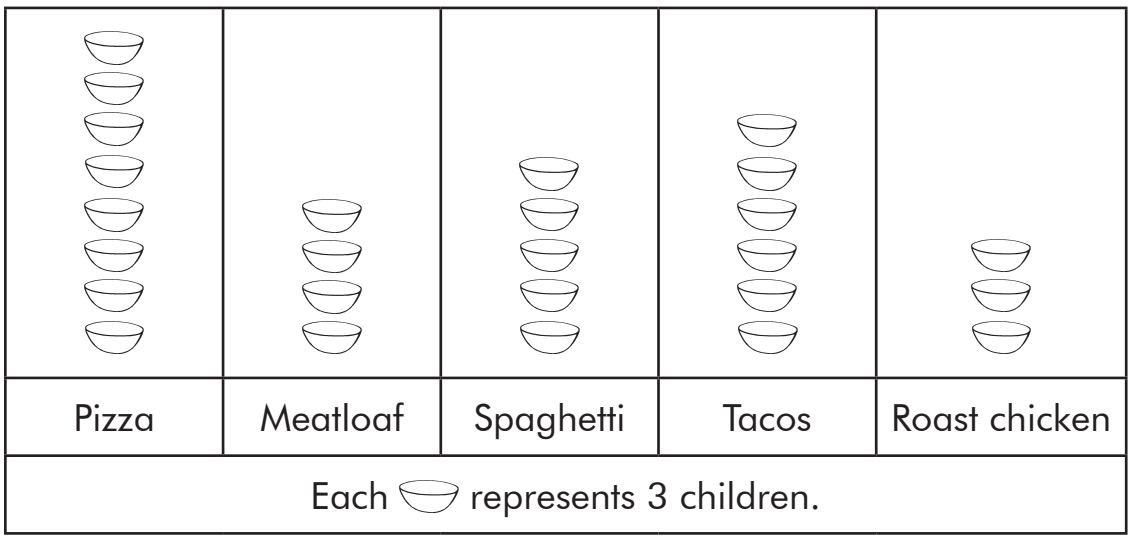
3.



_____ L of water

Fill in each blank with the correct answer.

4. **Favorite dinners of a group of children**



(a) The number of children who like to eat tacos is _____.

(b) The number of children who like to eat spaghetti is _____.

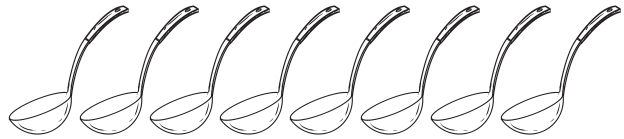
(c) There are _____ fewer children who like to eat roast chicken than tacos.

(d) There are _____ more children who like to eat pizza than meatloaf.

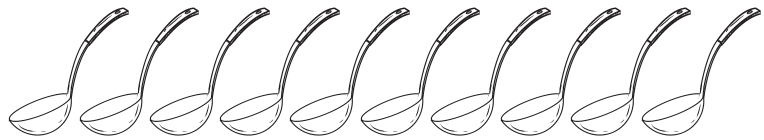
(e) The total number of children who like to eat meatloaf and spaghetti is _____.

5.

teapot



jug



cup

(a) The container that holds the greatest volume of water is the _____.

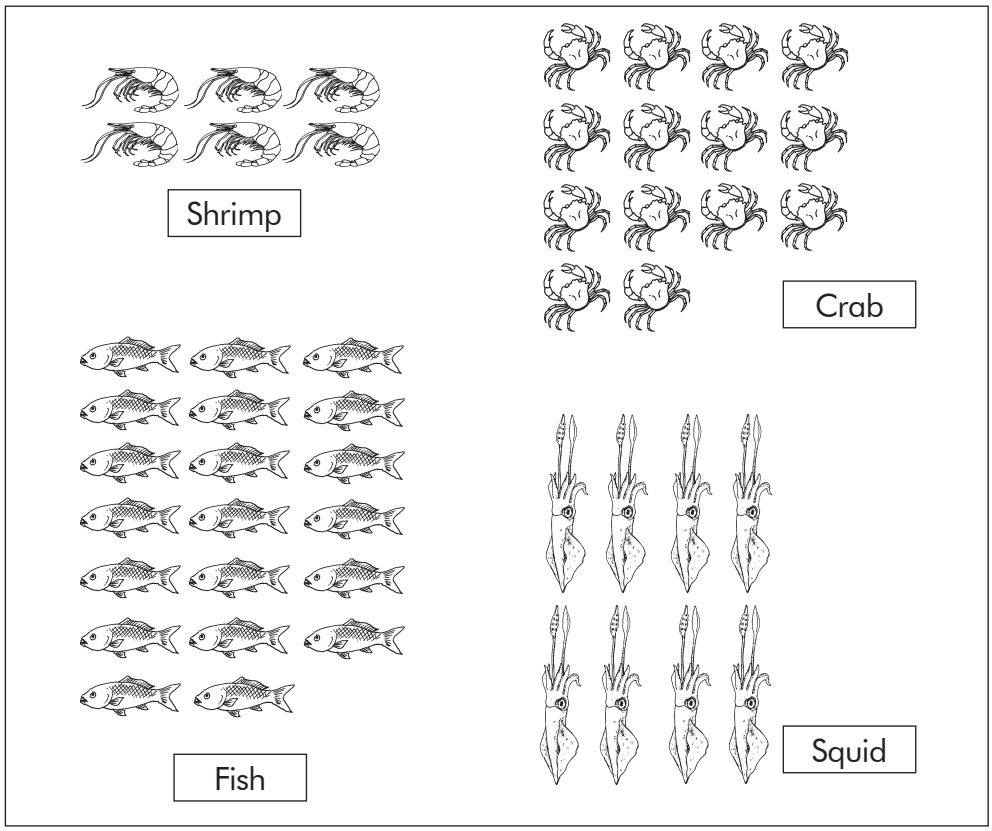
(b) The container that holds the least volume of water is the _____.

(c) The jug holds _____ more ladles of water than the cup.

(d) The cup holds _____ fewer ladles of water than the teapot.

(e) The total number of ladles that the 3 containers can hold is _____.

6. The pictures below show the types of seafood Mr. Kaufman sold at the fish market.



Complete the picture graph.

Shrimp	Crab	Fish	Squid
Each ☺ stands for 2 pieces of seafood.			

Do the following story problems. Show your work in the space below.

7. Riley bought 2 bottles of fruit juice. Each bottle contained 8 oz. of fruit juice. How many ounces of fruit juice did Riley buy?

Riley bought _____ oz. of fruit juice.

8. Li mixes 10 L of water with 8 L of frozen concentrate to make lemonade.

(a) How many liters of lemonade does Li make?

Li makes _____ L of lemonade.

(b) If Li gives 3 L of lemonade to her neighbor, how many liters of lemonade will she have left?

She will have _____ L of lemonade left.

9. Isabelle collected 10 gal. of rainwater on Monday. She collected 15 gal. of rainwater on Wednesday. How much rainwater did she collect altogether?

She collected _____ gal. of rainwater altogether.

10. Kate bought 5 L of milk over the weekend. She drank 2 L of milk on Monday and Tuesday. How much milk was left?

_____ L of milk was left.

11. Andy needed to buy 20 gal. of drinks for his birthday party. He bought 10 gal. of drinks from Supermarket A and 5 gal. of drinks from Supermarket B.

(a) How many gallons of drinks did Andy buy?

Andy bought _____ gal. of drinks.

(b) How many more gallons did he need to buy?

He needed to buy _____ more gallons of drinks.

12. Eva bought 2 bottles of liquid detergent. Bottle A contained 8 L of liquid detergent. Bottle B contained 25 L of liquid detergent. How much liquid detergent did Eva buy altogether?

Eva bought _____ L of liquid detergent altogether.

13. Kenji removed some water from a tank using a bucket. The bucket could hold 2 gal. of water. He filled the bucket completely with water 6 times. How much water did he remove from the tank?

Kenji removed _____ gal. of water from the tank.

14. Nick poured 24 L of orange juice into 4 containers equally. How much orange juice was there in each container?

There was _____ L of orange juice in each container.

15. Mrs. Anderson recycles water by collecting used water from the washing machine. She collects 5 buckets of used water every week. Each bucket can hold 3 gal. of used water. How much used water does she collect every week?

She collects _____ gal. of used water every week.

16. Jamie drinks 2 L of water daily. How much water does she drink in 10 days?

She drinks _____ L of water in 10 days.

17. Mr. Tomasek brews 17 gal. of coffee and 25 gal. of tea every day. How much coffee and tea does he brew every day?

He brews _____ gal. of coffee and tea every day.

18. Luisa pours 36 gal. of apple juice equally into some containers. Each container can hold 4 gal. of apple juice. How many containers does she need?

She needs _____ containers.

19. Alyssa bought 8 bottles of detergent. Each bottle of detergent was 2 L. How many liters of detergent did Alyssa buy?

Alyssa bought _____ L of detergent.

20. George used 5 gal. of water to wash a car. How many cars did he wash if he used 35 gal. of water?

He washed _____ cars if he used 35 gal. of water.

Unit 16: LINES AND SURFACES

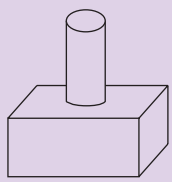
Examples:

1. This picture is formed using straight lines and curves.

(a) How many straight lines are there? **2** straight lines

(b) How many curves are there? **2** curves

2. The object below is made from a tissue box and a toilet paper roll.



How many flat surfaces does the object have? **5** flat surfaces

Fill in each blank with the correct answer.

1. **2 3 4 5 7 8**

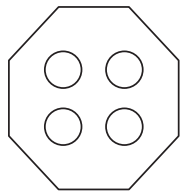
Which of the above digits have

(a) straight lines only? _____

(b) curves only? _____

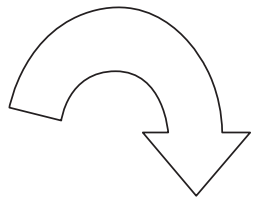
(c) straight lines and curves? _____

2.



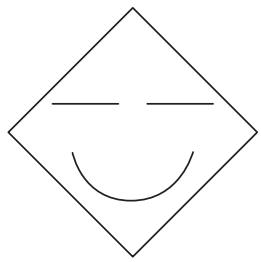
There are _____ straight lines and _____ curves in the above picture.

3.



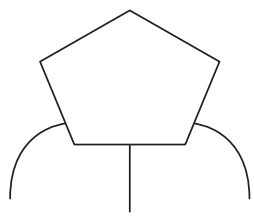
There are _____ straight lines and _____ curves in the above picture.

4.



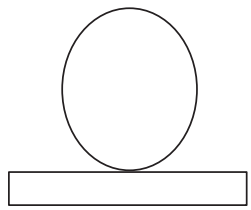
There are _____ straight lines and _____ curve in the above picture.

5.



There are _____ straight lines and _____ curves in the above picture.

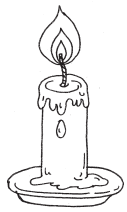
6.



There are _____ straight lines and _____ curve in the above picture.

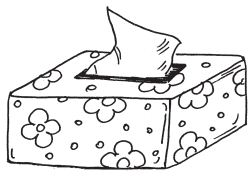
Look at these objects carefully. Fill in each blank with the correct answer.

7.



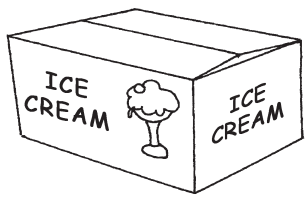
The candle has _____ flat surface(s).

8.



The box of tissues has _____ flat surface(s).

9.

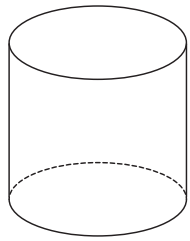


The box of ice cream has _____ flat surface(s).

10.

The pot of flowers has _____ flat surface(s).

11.



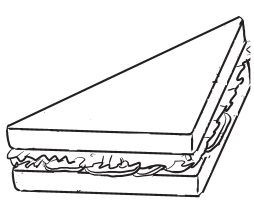
The container has _____ flat surface(s).

For each object, count the number of flat surfaces. Write the correct answer on the lines below.

12.

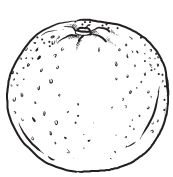
_____ flat surfaces

13.



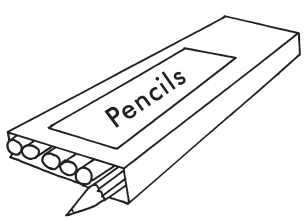
_____ flat surfaces

14.



_____ flat surfaces

15.



_____ flat surfaces

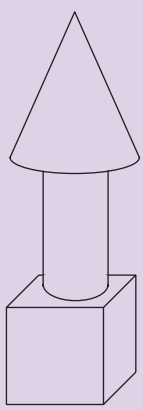
Unit 17: SHAPES AND PATTERNS

Examples:

1. What shapes are used to form the figure below?

The shapes are **quarter circle**, **square**, **rectangle**, and **triangle**.

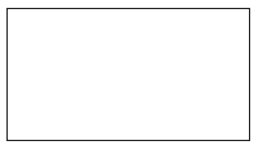
2. Draw a figure using a cone, a cube, and a cylinder.

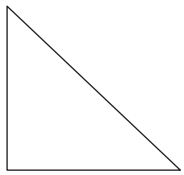


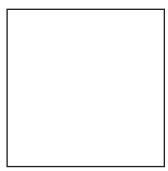
3. What comes next in the pattern below?

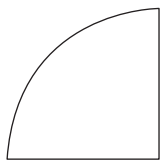
 comes next in the pattern.

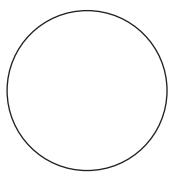
Identify the shapes below.

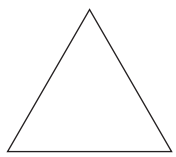
1. 

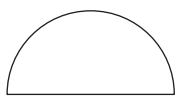
2. 

3. 

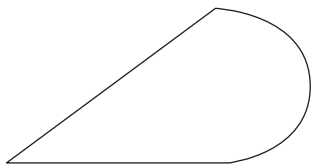
4. 

5. 

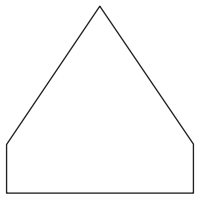
6. 

7. 

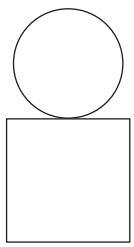
Each figure is made of 2 different shapes. Name the 2 shapes.

8. 

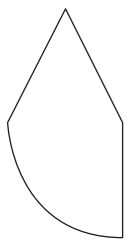
This figure is made of a _____ and a _____.

9. 

This figure is made of a _____ and a _____.

10. 

This figure is made of a _____ and a _____.

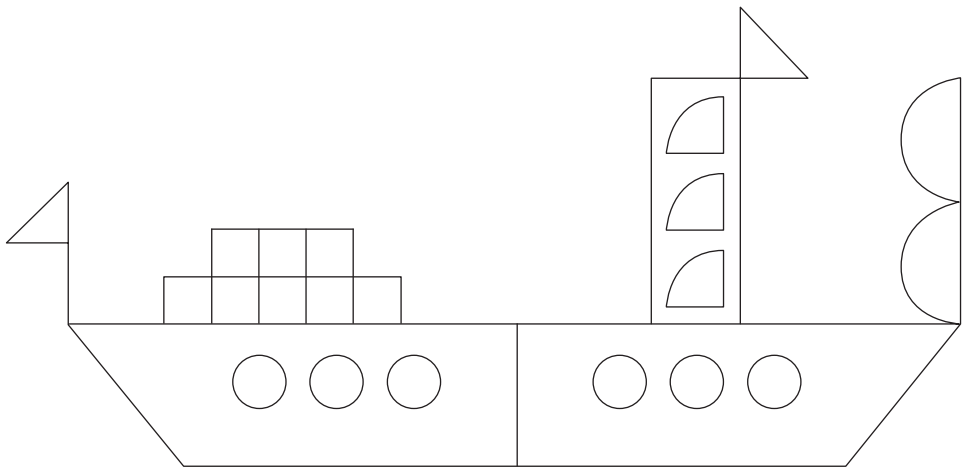
11. 

This figure is made of a _____ and a _____.

12. 

This figure is made of a _____ and a _____.

13. Look at the figure carefully, and fill in each blank with the correct answer.



The figure is formed by

(a) _____ rectangles,

(b) _____ triangles,

(c) _____ quarter circles,

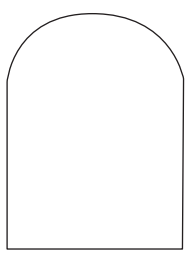
(d) _____ circles,

(e) _____ squares, and

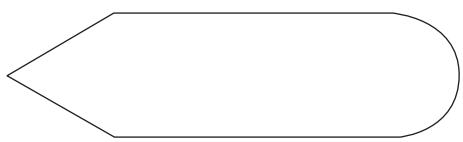
(f) _____ semicircles.

Draw lines to show the different shapes that make each figure.

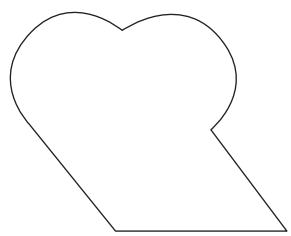
14.



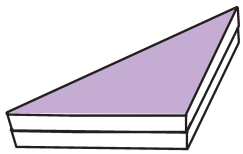
15.



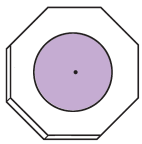
16.



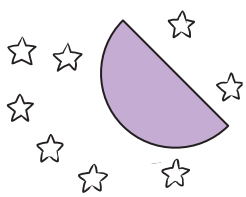
Fill in each blank with the name of the shaded part of each picture.

17. 

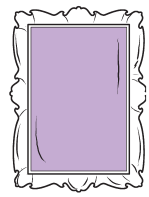
_____

18. 

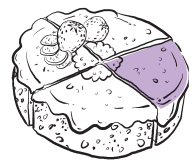
_____

19. 

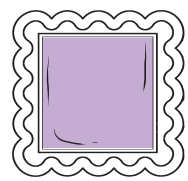
_____

20. 

_____

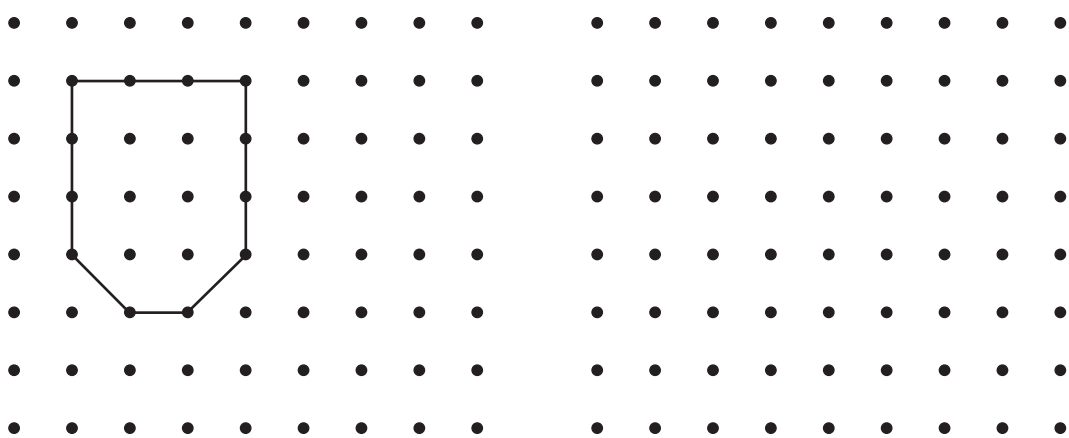
21. 

_____

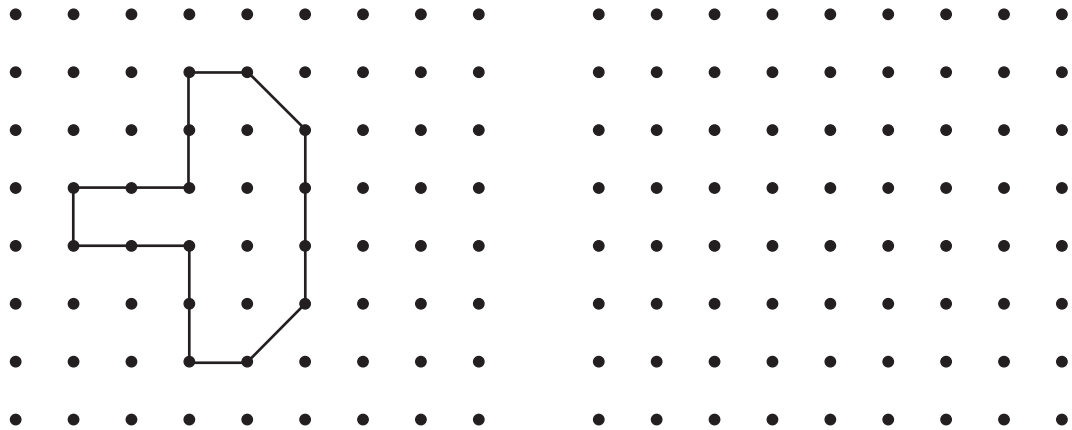
22. 

_____

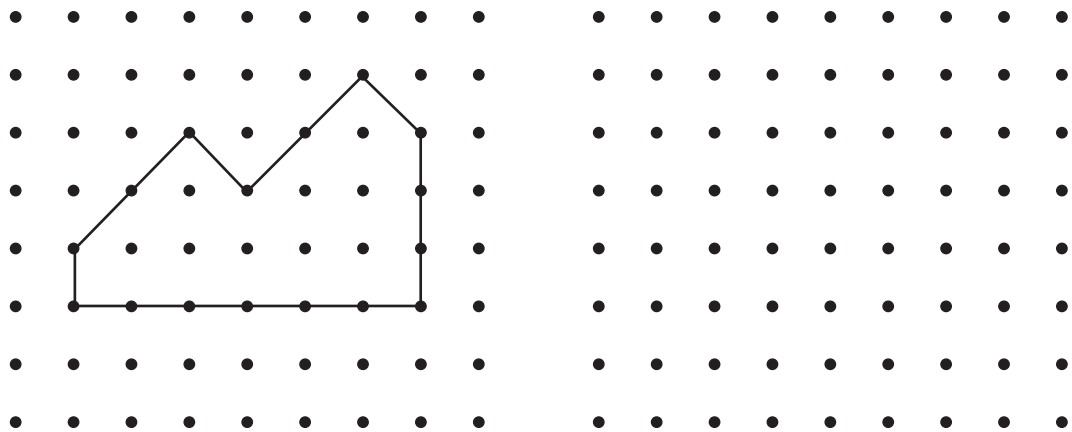
Carefully look at each shape on the left. Draw the same shape on the dot grid on the right.

23. 

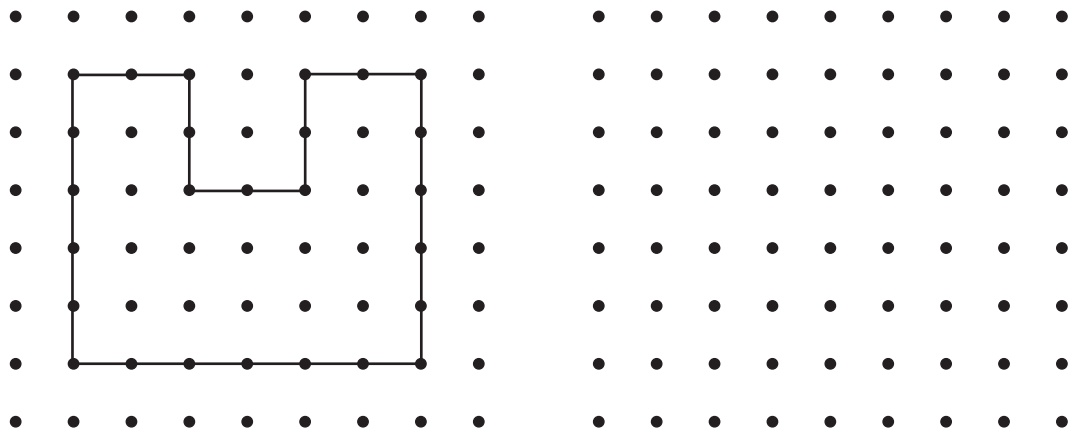
24.



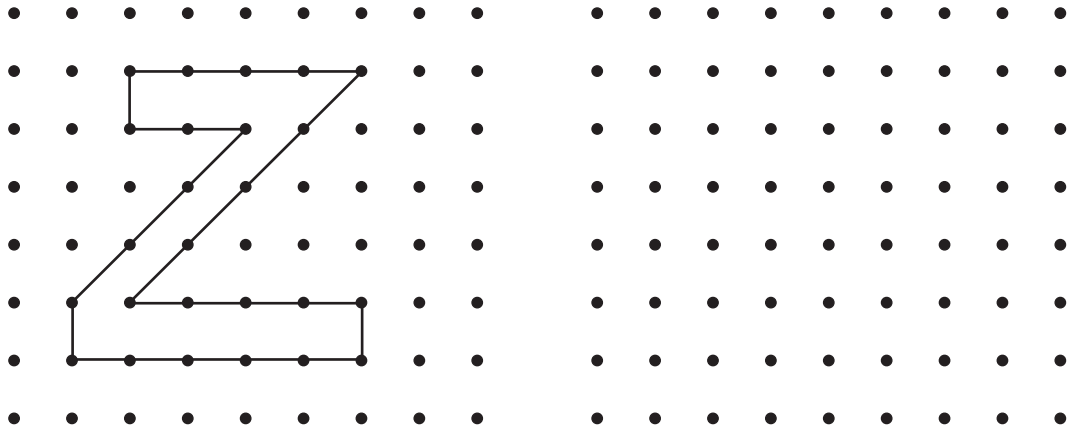
25.



26.

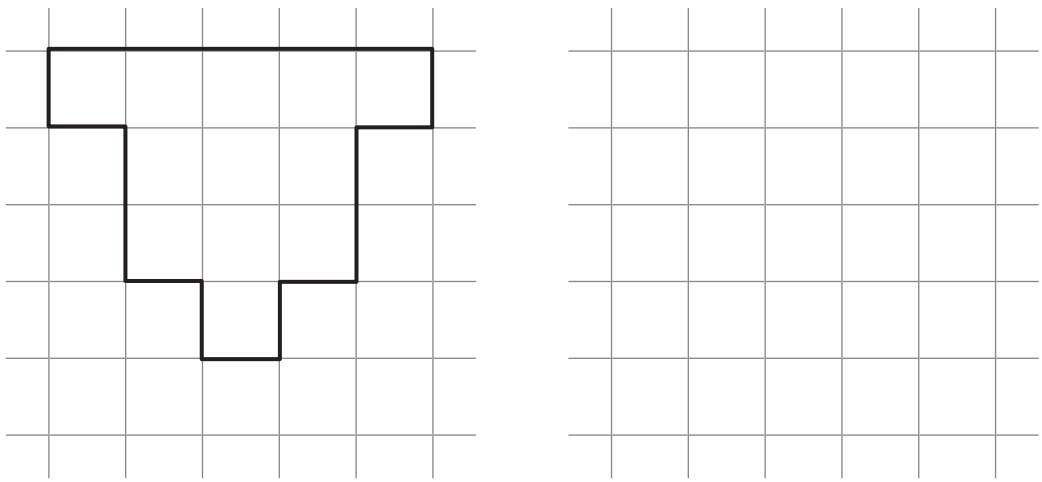


27.

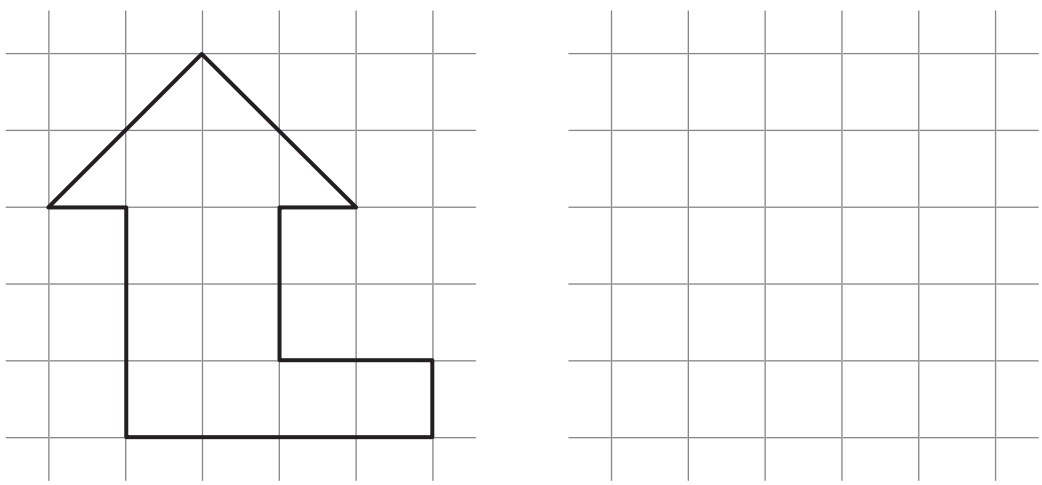


Carefully look at each shape on the left. Draw the same shape on the square grid on the right.

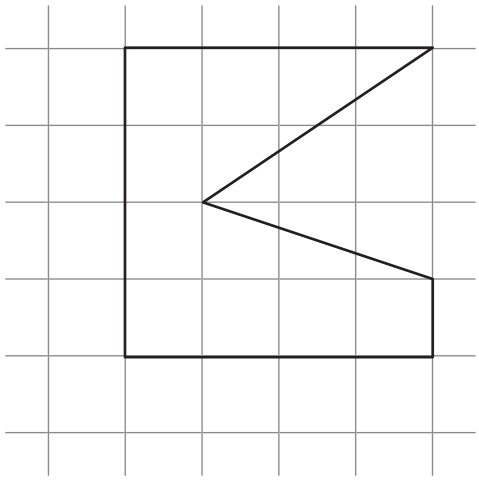
28.



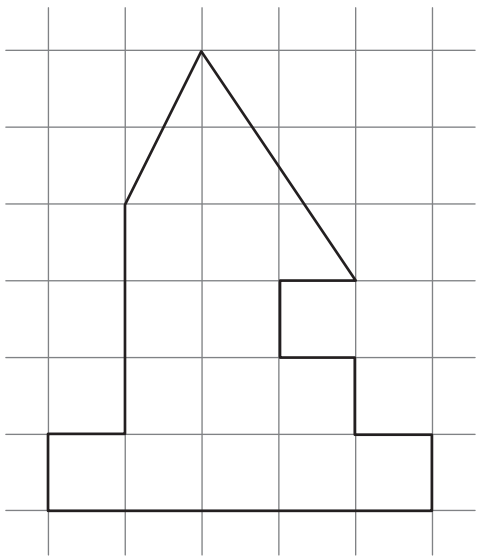
29.



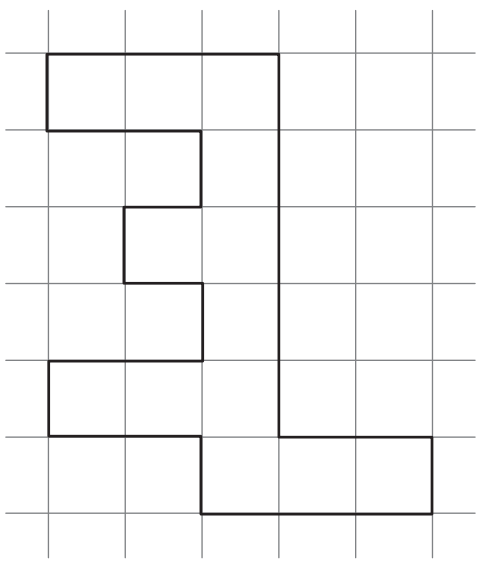
30.



31.

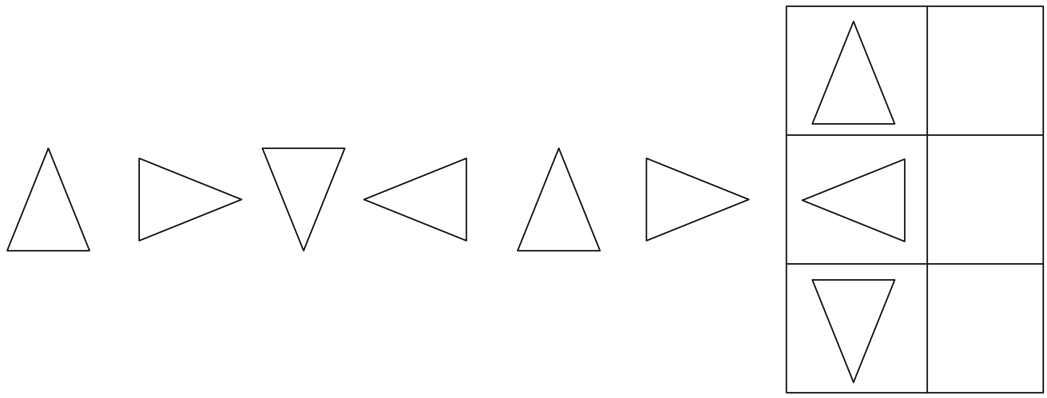


32.

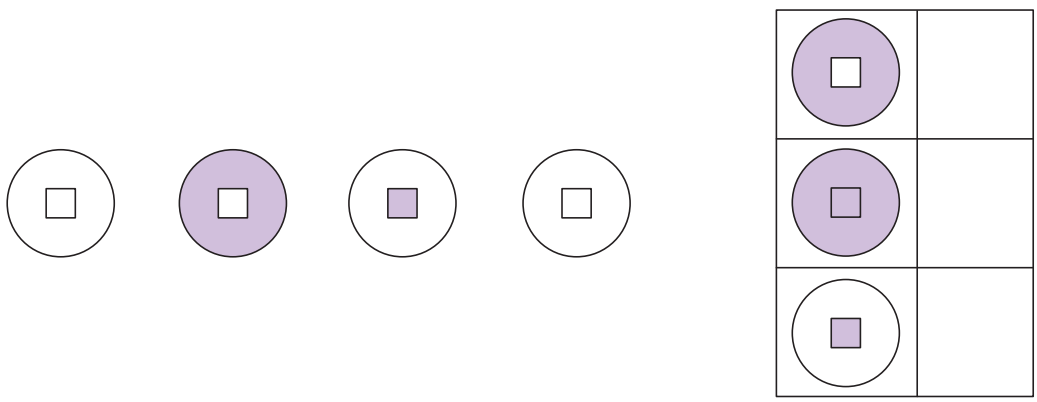


Put a check mark (✓) in the correct box to complete each pattern.

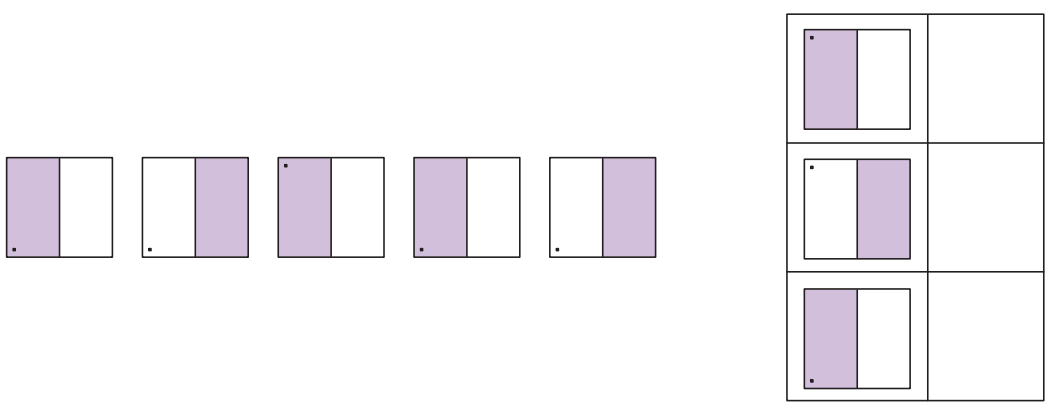
33.



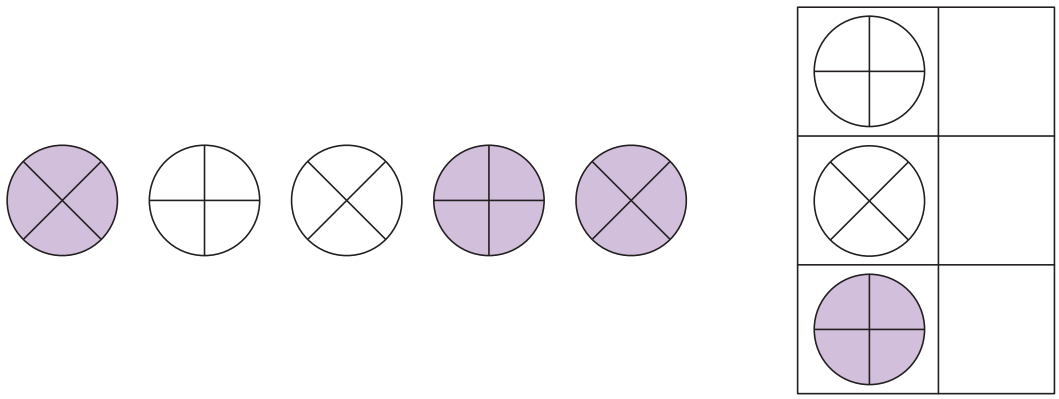
34.



35.

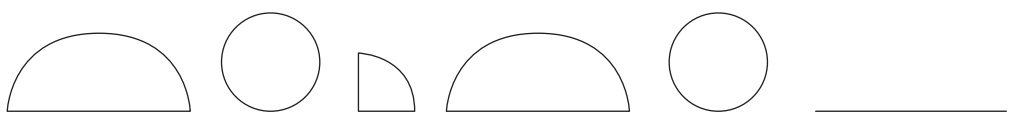


36.

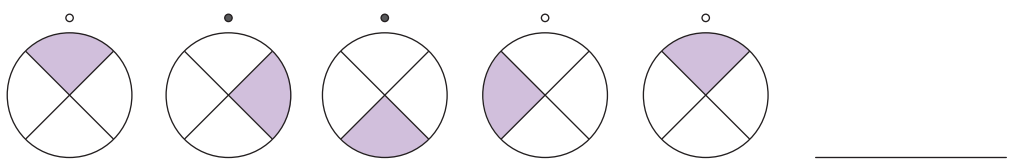


Complete the following patterns.

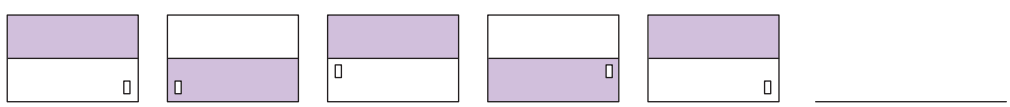
37.



38.

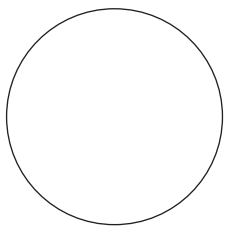


39.

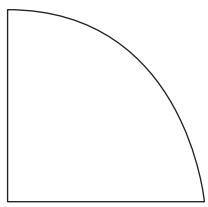


REVIEW 8

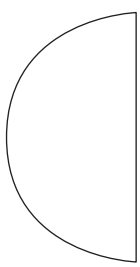
Name the following shapes.

1. 

_____

2. 

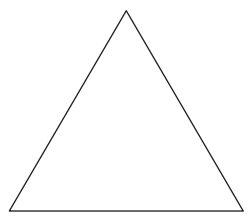
_____

3. 

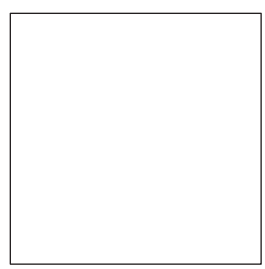
_____

4. 

_____

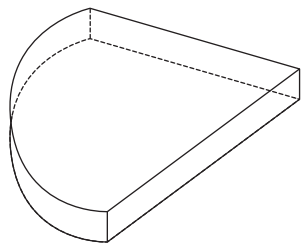
5. 

_____

6. 

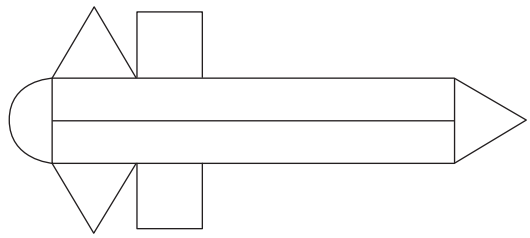
_____

7.



The figure above has _____ flat surface(s).

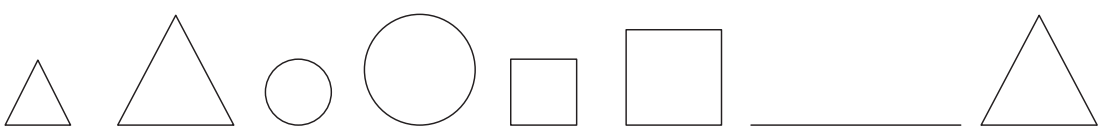
8.



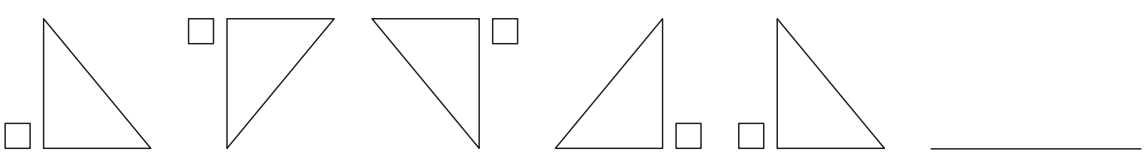
There are _____ triangles, _____ semicircles, _____ rectangles, and _____ squares in the figure above.

Complete the following patterns.

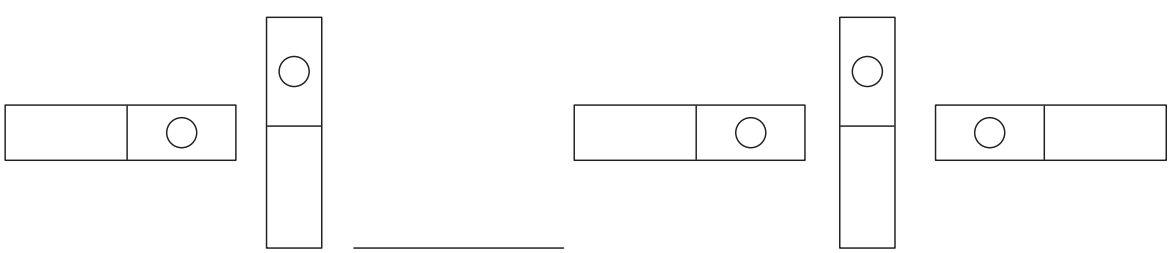
9.



10.

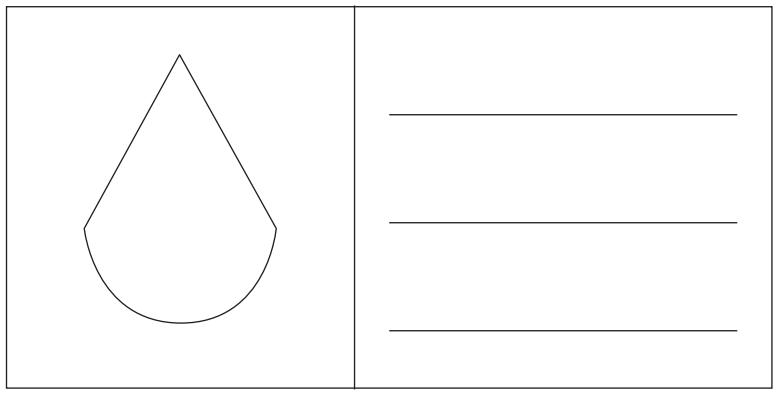


11.

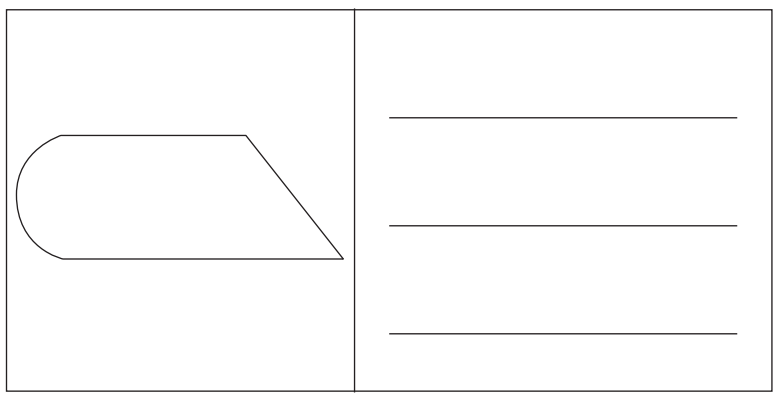


Draw dotted lines on each figure, and identify the shapes that form the figure on the lines below.

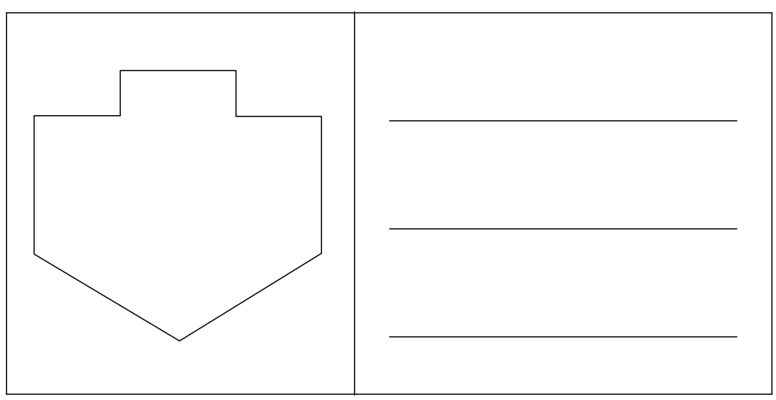
12.



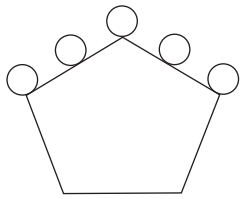
13.



14.



15.



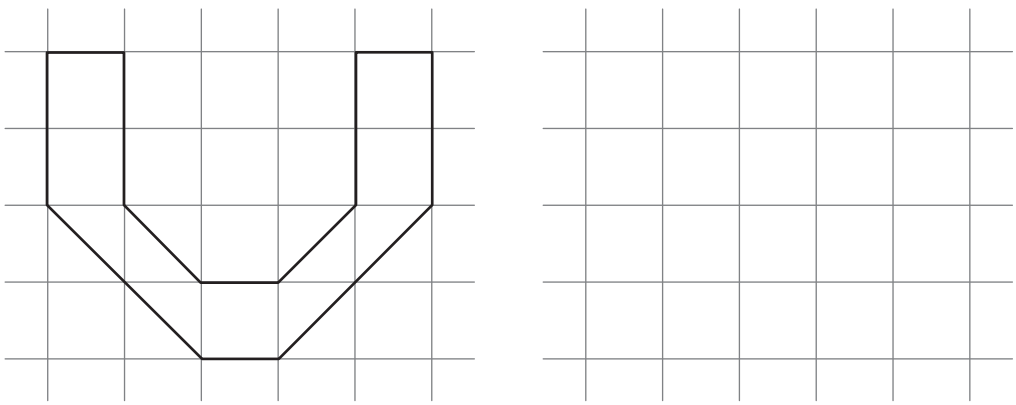
There are _____ straight lines and _____ curves in the above picture.

16.

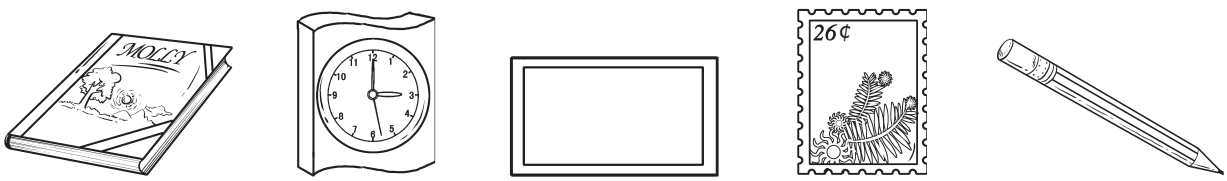
The battery has _____ flat surface(s).

Look at the shape on the left. Draw the same shape on the square grid on the right.

17.

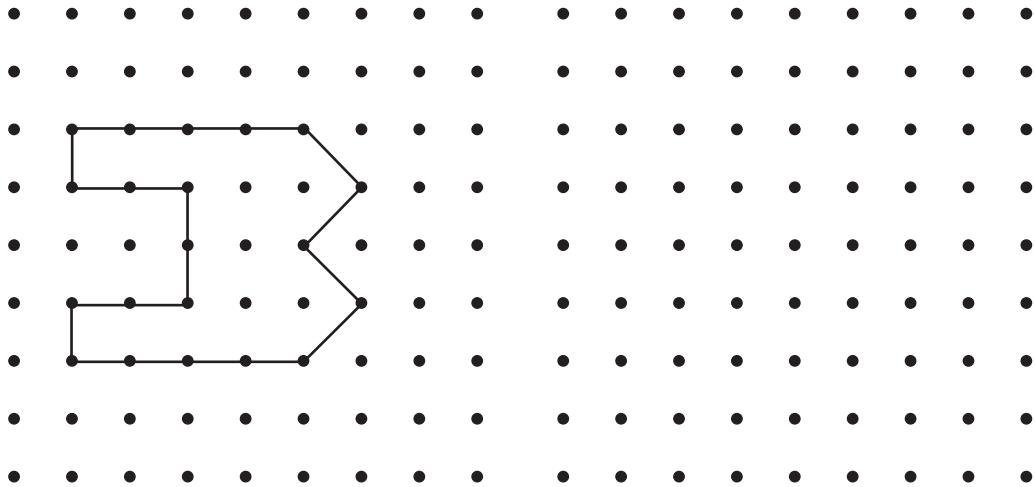


18. Color the objects that have only flat surfaces.

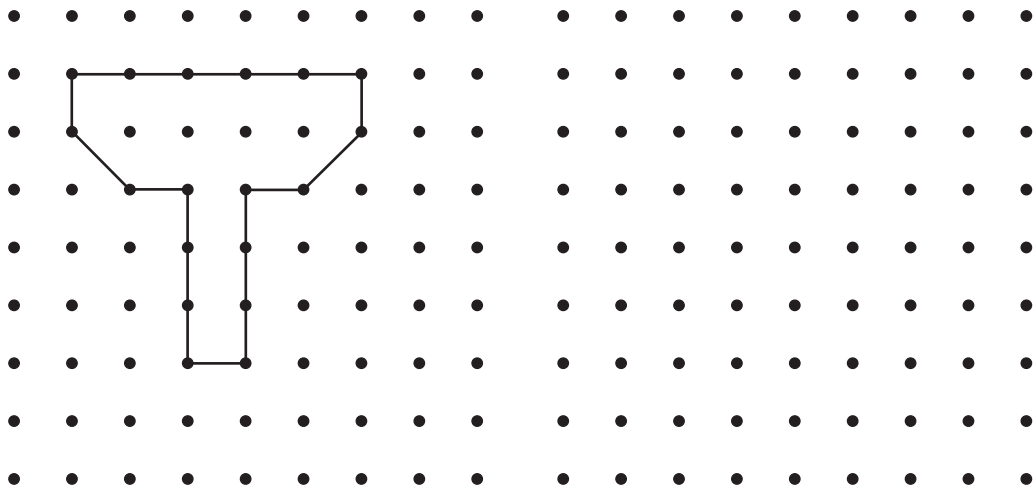


Carefully look at each shape on the left. Draw the same shape on the dot grid on the right.

19.

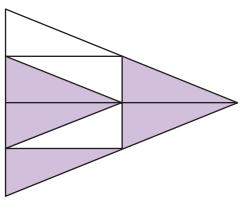


20.



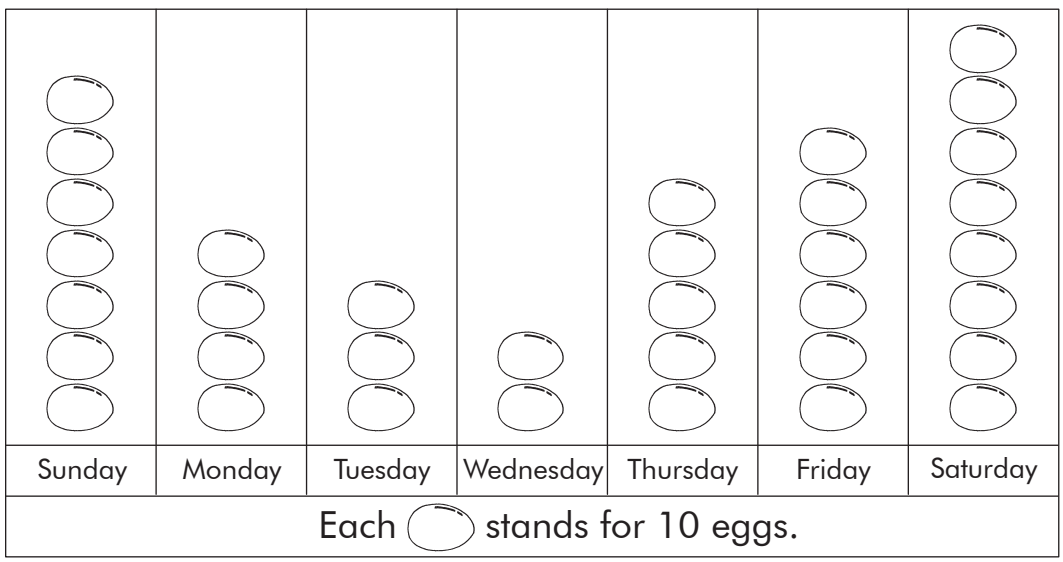
FINAL REVIEW

Fill in each blank with the correct answer.

1. 

_____ of the figure is shaded.

2. The picture graph below shows the number of eggs Jackson sold in a week.



(a) He sold _____ eggs on Thursday.

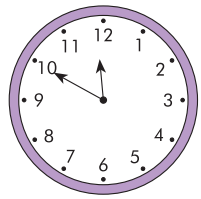
(b) He sold _____ eggs on Sunday.

(c) He sold _____ more eggs on Friday than on Monday.

(d) He sold _____ fewer eggs on Tuesday than on Saturday.

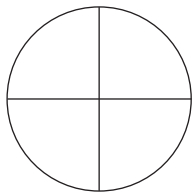
(e) He sold _____ eggs altogether on Monday and Wednesday.

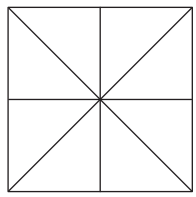
3. The time shown on the clock is 11:50 A.M.

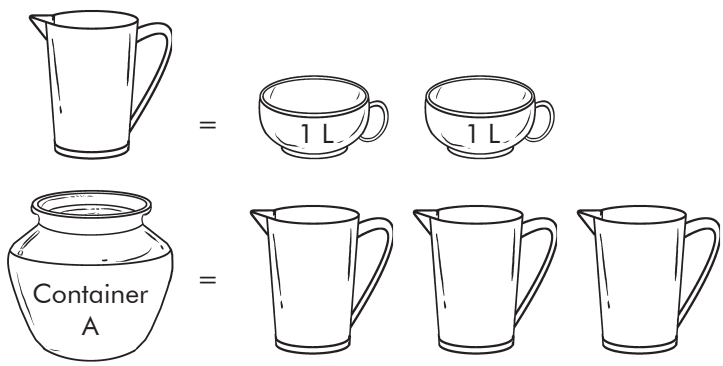


30 minutes later, it will be _____.

4. Shade $\frac{1}{4}$ of each figure.

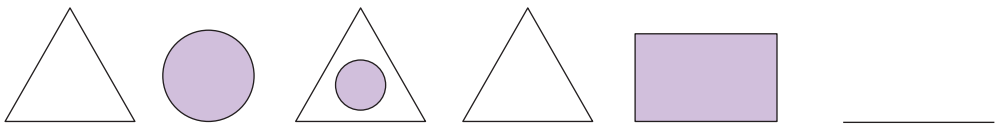
(a) 

(b) 

5. 

Container A can hold _____ L of water.

6. Complete the pattern.

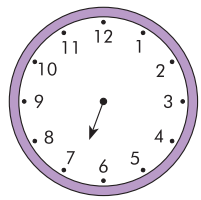


_____

7. Add 790 and 70 mentally. _____

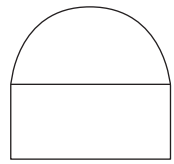
8. $\frac{2}{5}$ and _____ make one whole.

9. Draw the minute hand on the clock to show 6:40 P.M.



10. The figure on the right is made of a

_____ and a _____.



11. Look at the figures carefully.

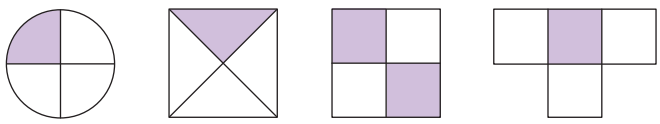
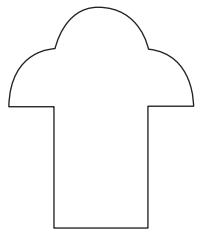


Figure _____ does not belong in the group.

12. △ × △ = 100
    ○ × ○ = 25
    △ × ○ = _____

13. $\frac{1}{10} + \frac{4}{10} + \frac{2}{10} =$ _____

14. The figure below is made of 4 different shapes. Draw dotted lines to show the shapes.



15. Circle the largest fraction.

$\frac{1}{12}$, $\frac{1}{9}$, $\frac{1}{11}$

16. \$48.30 = _____ dollars and _____ cents

17. Subtract 90 from 345 mentally. _____

18. Express 9,080¢ in dollars. _____

19. Subtract $\frac{2}{11}$ from $\frac{5}{11}$. _____

Solve the following story problems. Show your work in the space below.

20. Alice spent $30 at the supermarket. Sydney spent twice as much as Alice. How much did Sydney spend?

Sydney spent $_____.

21. Patrick gave 5 cans of juice to each of his 7 friends. How many cans of juice did he give to his friends?

He gave _____ cans of juice to his friends.

22. 3 groups of students took part in an art competition. There were 129 students in Group A, 257 students in Group B, and 229 students in Group C. How many students took part in the art competition?

_____ students took part in the art competition.

23. Terrell reads 4 books in a day. How many books will he read in a week?

He will read _____ books in a week.

24. Tyler and Jack make 600 L of fruit punch for an event. If Tyler makes 228 L of fruit punch, how many liters of fruit punch does Jack make?

Jack makes _____ L of fruit punch.

25. Malak received $50 from his aunt and $30 from his uncle on his birthday. How much money did Malak receive in all?

Malak received $_____ in all.

CHALLENGE QUESTIONS

Solve the following problems on another sheet of paper.

1. The chart below shows the number of pieces of clothing Mrs. Robinson sewed.

Number of days	1	3	6
Pieces of clothing	4	12	24

How many pieces of clothing did Mrs. Robinson sew in 10 days?

2. Sam is 12 years old. His mother is 3 times his age. His father is 5 years older than his mother. How much older is Sam's father than Sam?

3. Use numbers from 10 to 18 to make each vertical and horizontal line equal to the numbers in the shaded boxes. Each number can be used only once.

			41
			42
			43
43	42	41	

4. Five minutes before recess, Carlos and Henry looked at their watches. Carlos's watch was 5 minutes faster than the classroom clock. Henry's watch was 5 minutes slower than the classroom clock. If Carlos's watch showed 9:50 A.M., what was the time shown on Henry's watch?

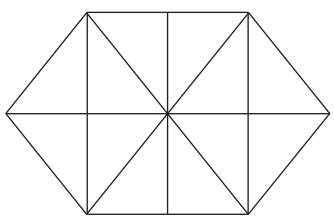
5. ♡ + △ = 120
♡ + ♡ = 80
♡ + △ + △ + △ = _____

6. The product of 2 numbers is 50. The result of the division of the 2 numbers is 2. What are the 2 numbers?

7. Christopher had a bottle of orange juice. He gave some juice to his best friend. He then gave half of the remaining juice to his neighbor. He was left with $\frac{1}{4}$ of the bottle of orange juice. What fraction of the bottle of orange juice did Christopher give to his best friend?

8. Austin spent an hour watching cartoons followed by 2 hours of a nap, and 3 hours of homework. If Austin completed his homework at 10 P.M., what time did he start watching cartoons?

9. How many triangles are there in the figure shown below?
(Hint: The triangles do not need to all be the same size.)

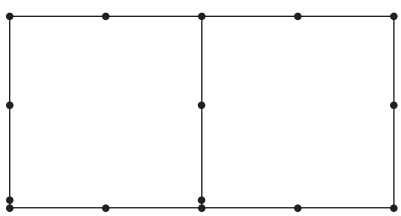


10. Fill in the blank with the correct answer.

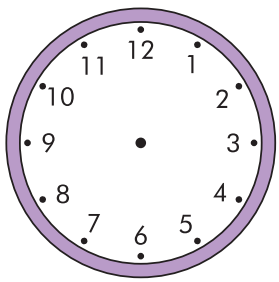
☾ × ◇ = 32 ☾ + ◇ = 12

☾ ÷ ◇ = 2 ☾ − ◇ = _____

11. Winnie uses some sticks to form 2 squares as shown below. How would you rearrange 4 matchsticks to form 3 rectangles?



12. It took Rico 30 minutes to wash his father's car and an hour to mow the lawn. Then, he took a 20-minute bath. By the time he stepped out of the bathroom, the hour hand pointed to 1 and the minute hand pointed to 4. On the clock, show the time Rico started to wash his father's car.



SOLUTIONS
Singapore Math Level 2A

Unit 1: Numbers up to 1,000

1. 4 hundreds 2 tens 5 ones = **425**
2. 3 hundreds 8 tens 7 ones = **387**
3. 5 hundreds 3 tens = **530**
4. 8 hundreds 7 ones = **807**
5. 10 hundreds = **1,000**
6. **seven hundred and sixty**
7. **three hundred and seventy-eight**
8. **four hundred and fifty-six**
9. **two hundred and two**
10. **one thousand**
11. **562**
12. **779**
13. **110**
14. **358**
15. **907**
16. **8**, **2**, **5**
17. **6**, **3**, **0**
18. **7**, **0**, **5**
19. **4**, **5**, **9**
20. **10**, **0**, **0**
21. **tens**
22. **hundreds**
23. **hundreds**
24. **9**
25. **3**
26. **0**
27. **greater**
28. **smaller**
29. **smaller**
30. **greater**
31. **smaller**
32. **379**, **397**, **937**, **973**
33. **129**, **192**, **219**, **319**
34. **511**, **571**, **715**, **751**
35. **116**, **163**, **313**, **316**
36. **344**, **404**, **434**, **443**
37. **750**, **705**, **570**, **507**
38. **413**, **341**, **314**, **134**
39. **960**, **608**, **517**, **289**, **187**
40. **857**, **456**, **320**, **220**, **190**
41. **970**, **927**, **727**, **290**, **279**
42. 10 + 560 = **570**
43. 680 – 20 = **660**
44. 100 + 778 = **878**
45. 695 – 200 = **495**
46. 279 – 5 = **274**
47. **300**, **310**
    290 – 280 = 10
    290 + 10 = 300
    300 + 10 = 310
48. **670**, **570**
    970 – 870 = 100
    770 – 100 = 670
    670 – 100 = 570
49. **780**, **840**
    820 – 800 = 20
    760 + 20 = 780
    820 + 20 = 840
50. **490**, **520**
    460 – 430 = 30
    460 + 30 = 490
    490 + 30 = 520
51. **450**, **550**
    750 – 650 = 100
    650 – 100 = 550
    550 – 100 = 450

Unit 2: Adding and Subtracting Numbers 1-1,000

1.
$$\begin{array}{r} 143 \\ +\ 214 \\ \hline \mathbf{357} \end{array}$$

2.
$$\begin{array}{r} 312 \\ +\ 481 \\ \hline \mathbf{793} \end{array}$$

3.
$$\begin{array}{r} 732 \\ +\ 145 \\ \hline \mathbf{877} \end{array}$$

4.
$$\begin{array}{r} 201 \\ +\ 283 \\ \hline \mathbf{484} \end{array}$$

5.
$$\begin{array}{r} 821 \\ +\ 163 \\ \hline \mathbf{984} \end{array}$$

6.
$$\begin{array}{r} 569 \\ -\ 234 \\ \hline \mathbf{335} \end{array}$$

7.
$$\begin{array}{r} 932 \\ -\ 121 \\ \hline \mathbf{811} \end{array}$$

8.
$$\begin{array}{r} 736 \\ -\ 204 \\ \hline \mathbf{532} \end{array}$$

9. $\begin{array}{r} 375 \\ -\ 152 \\ \hline \mathbf{223} \end{array}$

10. $\begin{array}{r} 859 \\ -\ 607 \\ \hline \mathbf{252} \end{array}$

11. $\begin{array}{r} {\scriptstyle 1} \\ 135 \\ +\ 109 \\ \hline \mathbf{244} \end{array}$

12. $\begin{array}{r} {\scriptstyle 1\ 1} \\ 505 \\ +\ 295 \\ \hline \mathbf{800} \end{array}$

13. $\begin{array}{r} {\scriptstyle 1} \\ 737 \\ +\ 129 \\ \hline \mathbf{866} \end{array}$

14. $\begin{array}{r} {\scriptstyle 1} \\ 256 \\ +\ 380 \\ \hline \mathbf{636} \end{array}$

15. $\begin{array}{r} {\scriptstyle 1} \\ 462 \\ +\ 208 \\ \hline \mathbf{670} \end{array}$

16. $\begin{array}{r} {\scriptstyle 1\ 1} \\ 397 \\ +\ 546 \\ \hline \mathbf{943} \end{array}$

17. $\begin{array}{r} {\scriptstyle 2\ 14\ 13} \\ 3\not{5}\not{3} \\ -\ 174 \\ \hline \mathbf{179} \end{array}$

18. $\begin{array}{r} {\scriptstyle \ 6\ 11} \\ 9\not{7}\not{1} \\ -\ 369 \\ \hline \mathbf{602} \end{array}$

19. $\begin{array}{r} {\scriptstyle 3\ 9\ 10} \\ \not{4}\,0\not{0} \\ -\ 205 \\ \hline \mathbf{195} \end{array}$

20. $\begin{array}{r} {\scriptstyle 5\ 13} \\ \not{6}\not{3}2 \\ -\ 171 \\ \hline \mathbf{461} \end{array}$

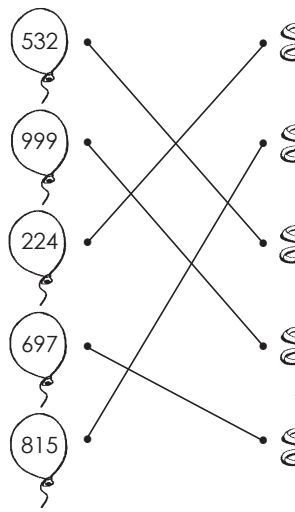
21. $\begin{array}{r} {\scriptstyle 3\ 10\ 12} \\ \not{4}\not{1}\not{2} \\ -\ 124 \\ \hline \mathbf{288} \end{array}$

22. $\begin{array}{r} {\scriptstyle 4\ 9\ 10} \\ \not{5}\,0\not{0} \\ -\ 178 \\ \hline \mathbf{322} \end{array}$

23. $\begin{array}{r} {\scriptstyle 7\ 10} \\ \not{8}\,\not{0}\,0 \\ -\ 280 \\ \hline \mathbf{520} \end{array}$

24. $\begin{array}{r} {\scriptstyle \ 7\ 10} \\ 9\not{8}\not{0} \\ -\ 555 \\ \hline \mathbf{425} \end{array}$

25.



$\begin{array}{r} {\scriptstyle \ 8\ 12} \\ 5\not{9}\not{2} \\ -\ 368 \\ \hline 224 \end{array}$

$\begin{array}{r} {\scriptstyle 1\ 1} \\ 446 \\ +\ 369 \\ \hline 815 \end{array}$

$\begin{array}{r} {\scriptstyle 0\ 9\ 9\ 10} \\ \not{1},\not{0}\not{0}\not{0} \\ -\ 468 \\ \hline 532 \end{array}$

$\begin{array}{r} {\scriptstyle \ \ \ } \\ 319 \\ +\ 680 \\ \hline 999 \end{array}$

$\begin{array}{r} {\scriptstyle \ 7\ 14\ 16} \\ 8\not{5}\not{6} \\ -\ 159 \\ \hline 697 \end{array}$

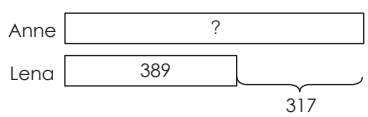
26.

73	+	42	=	115
−		+		−
70	−	30	=	40
=		=		=
3	+	72	=	75

27.

231	+	124	=	355
−		+		−
115	−	96	=	19
=		=		=
116	+	220	=	336

28.

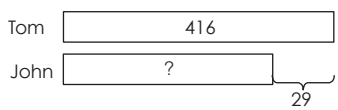


389 + 317 = 706

Anne collects **706** stickers.

$\begin{array}{r} {\scriptstyle 1\ 1} \\ 389 \\ +\ 317 \\ \hline 706 \end{array}$

29.

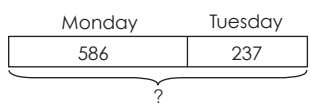


416 – 29 = 387

John has **387** bottle caps.

$\begin{array}{r} {\scriptstyle 3\ 10\ 16} \\ \not{4}\not{1}\not{6} \\ -\ 29 \\ \hline 387 \end{array}$

30.

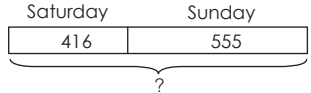


586 + 237 = 823

He sold **823** roses altogether.

$\begin{array}{r} {\scriptstyle 1} \\ 586 \\ +\ 237 \\ \hline 823 \end{array}$

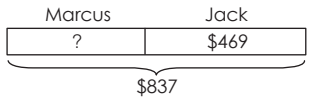
31.



416 + 555 = 971

971 visitors were at the museum on both days.

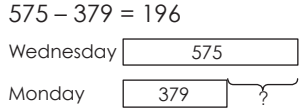
$\begin{array}{r} {\scriptstyle 1} \\ 416 \\ +\ 555 \\ \hline 971 \end{array}$

32. 

$837 – $469 = $368
Marcus spent **$368**.

Review 1

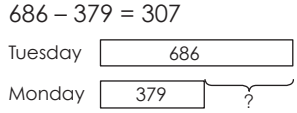
1. **three hundred and seventy-five**
2. **nine hundred and nineteen**
3. **212**
4. **303**
5. **917**, **420**, **402**, **313**, **179**
6. **128**, **182**, **218**, **281**, **812**
7. 10 + 360 = **370**
8. 876 – 50 = **826**
9. **516**, **456**
   496 – 476 = 20
   536 – 20 = 516
   476 – 20 = 456
10. $\begin{array}{r} {\scriptstyle 1} \\ 608 \\ +\ 129 \\ \hline \mathbf{737} \end{array}$
11. $\begin{array}{r} {\scriptstyle 1\ 1} \\ 576 \\ +\ 188 \\ \hline \mathbf{764} \end{array}$
12. $\begin{array}{r} {\scriptstyle 1} \\ 154 \\ +\ 365 \\ \hline \mathbf{519} \end{array}$
13. $\begin{array}{r} {\scriptstyle 1\ 1} \\ 312 \\ +\ 498 \\ \hline \mathbf{810} \end{array}$
14. $\begin{array}{r} {\scriptstyle 6\ 9\ 10} \\ 7\cancel{0}\cancel{0}\cancel{0} \\ -\ 435 \\ \hline \mathbf{265} \end{array}$
15. $\begin{array}{r} {\scriptstyle 1\ 18} \\ 3\cancel{2}\cancel{8} \\ -\ 109 \\ \hline \mathbf{219} \end{array}$
16. $\begin{array}{r} {\scriptstyle 7\ 15\ 10} \\ 8\cancel{6}\cancel{0} \\ -\ 389 \\ \hline \mathbf{471} \end{array}$
17. $\begin{array}{r} {\scriptstyle 4\ 13\ 12} \\ 5\cancel{4}\cancel{2} \\ -\ 379 \\ \hline \mathbf{163} \end{array}$
18. (a) 575 – 379 = 196



$\begin{array}{r} {\scriptstyle 4\ 16\ 15} \\ 5\cancel{7}\cancel{5} \\ -\ 379 \\ \hline 196 \end{array}$

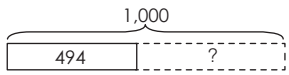
196 more people went to the zoo on Wednesday than on Monday.

(b) 686 – 379 = 307



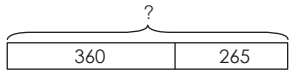
$\begin{array}{r} {\scriptstyle 7\ 16} \\ 6\cancel{8}\cancel{6} \\ -\ 379 \\ \hline 307 \end{array}$

307 fewer people went to the zoo on Monday than on Tuesday.

19. 

$\begin{array}{r} {\scriptstyle 0\ 9\ 9\ 10} \\ 1\cancel{,}\cancel{0}\cancel{0}\cancel{0} \\ -\ 494 \\ \hline 506 \end{array}$

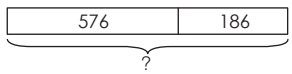
1,000 – 494 = 506
Aaron needs to collect **506** more stamps.

20. 

$\begin{array}{r} {\scriptstyle 1} \\ 360 \\ +\ 265 \\ \hline 625 \end{array}$

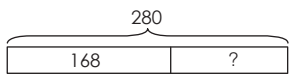
360 + 265 = 625
Jazmin sold **625** flowers on both days.

Unit 3: Fun with Models (Adding and Subtracting)

1. 

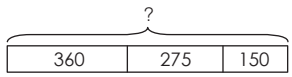
$\begin{array}{r} {\scriptstyle 1\ 1} \\ 576 \\ +\ 186 \\ \hline 762 \end{array}$

576 + 186 = 762
They have **762** bookmarks altogether.

2. 

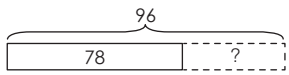
$\begin{array}{r} {\scriptstyle 7\ 10} \\ 2\cancel{8}\cancel{0} \\ -\ 168 \\ \hline 112 \end{array}$

280 – 168 = 112
He has **112** chickens left.

3. 

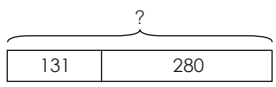
$\begin{array}{r} {\scriptstyle 1} \\ 360 \\ +\ 275 \\ \hline 635 \end{array}$ $\begin{array}{r} 635 \\ +\ 150 \\ \hline 785 \end{array}$

360 + 275 + 150 = 785
He sold **785** oranges altogether.

4. 

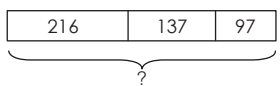
$\begin{array}{r} {\scriptstyle 8\ 16} \\ 9\cancel{6} \\ -\ 78 \\ \hline 18 \end{array}$

96 – 78 = 18
She gave **18** seashells to her best friend.

5. 

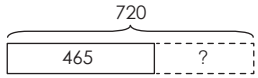
$\begin{array}{r} {\scriptstyle 1} \\ 131 \\ +\ 280 \\ \hline 411 \end{array}$

131 + 280 = 411
He had **411** stamps altogether.

6. 

$\begin{array}{r} {\scriptstyle 1} \\ 216 \\ +\ 137 \\ \hline 353 \end{array}$ $\begin{array}{r} {\scriptstyle 1\ 1} \\ 353 \\ +\ 97 \\ \hline 450 \end{array}$

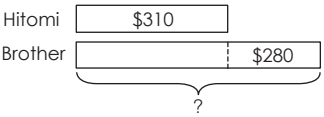
216 + 137 + 97 = 450
There are **450** animals on the farm.

7. 

$\begin{array}{r} {\scriptstyle 6\ 11\ 10} \\ 7\cancel{2}\cancel{0} \\ -\ 465 \\ \hline 255 \end{array}$

720 – 465 = 255
He gave **255** trading cards to his brother.

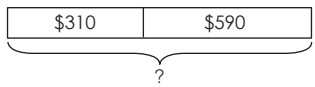
8. (a)



$\begin{array}{r} 310 \\ +\ 280 \\ \hline 590 \end{array}$

$310 + $280 = $590
Her brother saves **$590**.

(b)

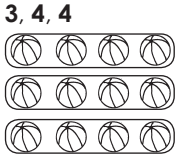


$$\begin{array}{r} {\scriptstyle 1} \\ 3\,1\,0 \\ +\,5\,9\,0 \\ \hline 9\,0\,0 \end{array}$$

$310 + $590 = $900
They save **$900** altogether.

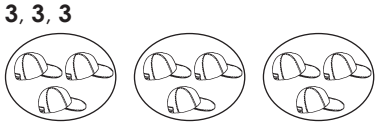
Unit 4: Multiplying and Dividing

1. **12**, **12**
   2 + 2 + 2 + 2 + 2 + 2 = 12
2. **20**, **20**
   4 + 4 + 4 + 4 + 4 = 20
3. **21**, **21**
   3 + 3 + 3 + 3 + 3 + 3 + 3 = 21
4. **25**, **25**
   5 + 5 + 5 + 5 + 5 = 25
5. **27**, **27**
   9 + 9 + 9 = 27
6. **3** + **3** + **3** + **3** + **3** + **3** = **18**
7. **2** + **2** + **2** + **2** + **2** = **10**
8. **4** + **4** + **4** = **12**
9. **5** + **5** + **5** + **5** + **5** + **5** + **5** + **5** = **40**
10. **4** + **4** + **4** + **4** = **16**
11. **2**, **14**
12. **4**, **20**
13. **8**, **16**
14. **3**, **15**
15. **4**, **16**
16. **6**, **3**, **18**, **18**
17. **8**, **10**, **80**, **80**
18. **3**, **4**, **12**, **12**
19. **5**, **5**, **25**, **25**
20. **5**, **7**, **35**, **35**
21. **3**, **4**, **4**

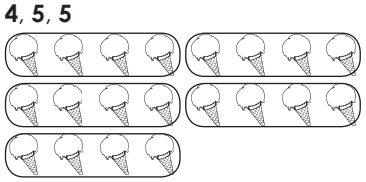


22. **2**, **10**, **10**

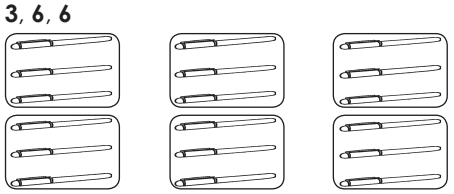
23. **3**, **3**, **3**



24. **4**, **5**, **5**



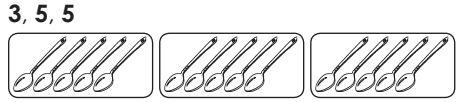
25. **3**, **6**, **6**



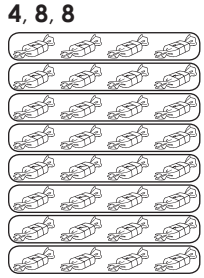
26. **8** × **2** = **16** **2** × **8** = **16**
    16 ÷ **8** = **2** **16** ÷ **2** = **8**
27. **3** × **7** = **21** **7** × **3** = **21**
    21 ÷ **3** = **7** **21** ÷ **7** = **3**
28. **3** × **6** = **18** **6** × **3** = **18**
    18 ÷ **3** = **6** **18** ÷ **6** = **3**
29. **6** × **4** = **24** **4** × **6** = **24**
    24 ÷ **6** = **4** **24** ÷ **4** = **6**
30. **4** × **3** = **12** **3** × **4** = **12**
    12 ÷ **4** = **3** **12** ÷ **3** = **4**

Review 2

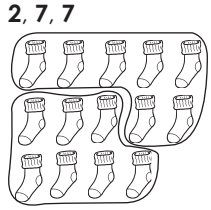
1. **14**, **14**
   2 + 2 + 2 + 2 + 2 + 2 + 2 = 14
2. **3** + **3** + **3** + **3** + **3** + **3** + **3** + **3** + **3** = **27**
3. **4** × **3** = **12** **3** × **4** = **12**
   12 ÷ **4** = **3** **12** ÷ **3** = **4**
4. **5** × **2** = **10** **2** × **5** = **10**
   10 ÷ **5** = **2** **10** ÷ **2** = **5**
5. **3**, **5**, **5**

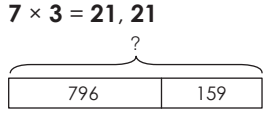


6. **4**, **8**, **8**



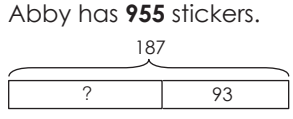
7. **2**, **7**, **7**



8. **3** × **6** = **18**, **18**
9. **4** × **5** = **20**, **20**
10. **7** × **3** = **21**, **21**
11. 

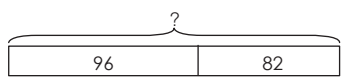
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 7\,9\,6 \\ +\,1\,5\,9 \\ \hline 9\,5\,5 \end{array}$$

796 + 159 = 955
Abby has **955** stickers.

12. 

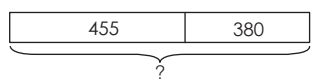
$$\begin{array}{r} {\scriptstyle 0\ 18} \\ 1\,\not{8}\,\not{7} \\ -\quad 9\,3 \\ \hline 9\,4 \end{array}$$

187 – 93 = 94
She has **94** oranges left.

13. 

$$\begin{array}{r} 9\,6 \\ +\,8\,2 \\ \hline 1\,7\,8 \end{array}$$

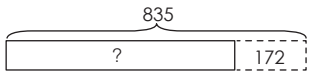
96 + 82 = 178
He scored **178** on both tests combined.

14. (a) 

$$\begin{array}{r} {\scriptstyle 1} \\ 4\,5\,5 \\ +\,3\,8\,0 \\ \hline 8\,3\,5 \end{array}$$

455 + 380 = 835
She baked **835** cookies during the weekend.

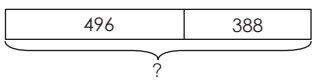
(b)



$$\begin{array}{r} {}^{7}\cancel{8}\,{}^{13}\cancel{3}5 \\ -\ 1\ 7\ 2 \\ \hline 6\ 6\ 3 \end{array}$$

835 – 172 = 663
She had **663** cookies left.

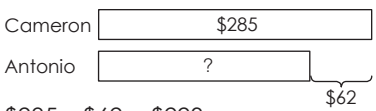
15.



$$\begin{array}{r} {}^{1}\ {}^{1} \\ 4\ 9\ 6 \\ +\ 3\ 8\ 8 \\ \hline 8\ 8\ 4 \end{array}$$

496 + 388 = 884
They have **884** books in all.

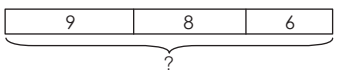
16.



$$\begin{array}{r} 2\ 8\ 5 \\ -\ \ 6\ 2 \\ \hline 2\ 2\ 3 \end{array}$$

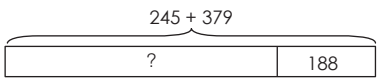
$285 – $62 = $223
Antonio spent **$223**.

17.



9 + 8 + 6 = 23
The 3 boys have **23** marbles altogether.

18.



245 + 379 = 624

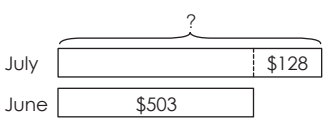
$$\begin{array}{r} {}^{1}\ {}^{1} \\ 2\ 4\ 5 \\ +\ 3\ 7\ 9 \\ \hline 6\ 2\ 4 \end{array}$$

624 – 188 = 436

$$\begin{array}{r} {}^{5}\ {}^{11}\ {}^{14} \\ \cancel{6}\ \cancel{2}\ \cancel{4} \\ -\ 1\ 8\ 8 \\ \hline 4\ 3\ 6 \end{array}$$

Mr. Simon had **436** pieces of fruit left.

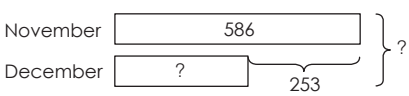
19.



$$\begin{array}{r} {}^{1} \\ 5\ 0\ 3 \\ +\ 1\ 2\ 8 \\ \hline 6\ 3\ 1 \end{array}$$

$503 + $128 = $631
She spent **$631** in July.

20.



586 – 253 = 333

$$\begin{array}{r} 5\ 8\ 6 \\ -\ 2\ 5\ 3 \\ \hline 3\ 3\ 3 \end{array}$$

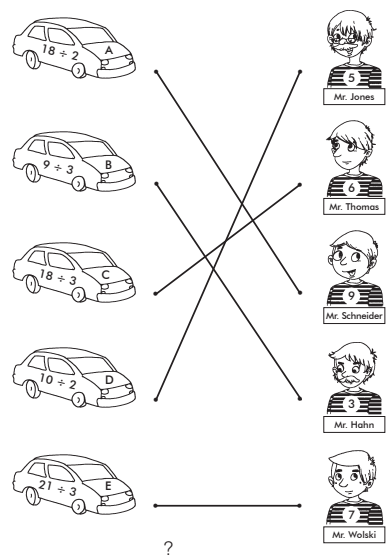
586 + 333 = 919

$$\begin{array}{r} {}^{1} \\ 5\ 8\ 6 \\ +\ 3\ 3\ 3 \\ \hline 9\ 1\ 9 \end{array}$$

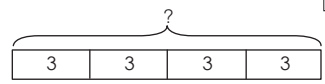
919 visitors went to the zoo in these 2 months.

Unit 5: Multiplying and Dividing Numbers by 2 and 3

1. **6**, **8**, **12**
2. **9**, **12**, **18**
3. **8**
4. **12**
5. **15**
6. **16**
7. **27**
8. **9**
9. **21**
10. **18**
11. **18**
12. **10**
13. **10**
14. **5**
15. **6**
16. **3**
17. **6**
18. **9**
19. **5**
20. **4**
21. **8**
22. **9**
23. **10**
24. **7**
25. **8**
26. **6**
27. **7**
28. **4**
29. **6**
30. **5**
31. **5**
32. **8**
33.

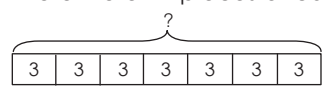


34.



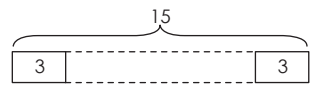
4 × 3 = 12
There were **12** pieces of cakes altogether.

35.



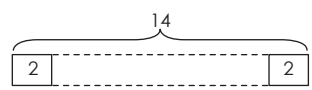
7 × 3 = 21
There are **21** stars altogether.

36.



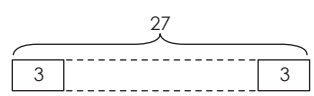
15 ÷ 3 = 5
There are **5** tricycles.

37.



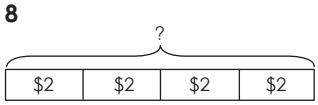
14 ÷ 2 = 7
She gave the muffins to **7** friends.

38.



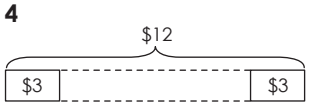
27 ÷ 3 = 9
She will need **9** bags.

39. (a) **8**



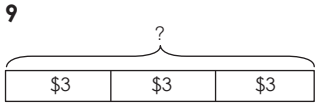
4 × $2 = $8

(b) **4**



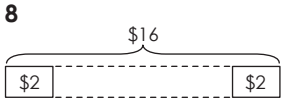
$12 ÷ $3 = 4

(c) **9**



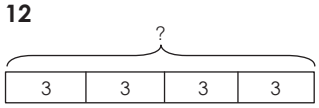
3 × $3 = $9

(d) **8**



$16 ÷ $2 = 8

(e) **12**



4 × 3 = 12

40.

12	÷	**2**	=	6
÷				×
6	÷	**2**	=	**3**
=				=
2	×	9	=	18

Unit 6: Multiplying and Dividing Numbers by 4, 5, and 10

1.

Number of cars	1	2	4	**7**	9
Number of wheels	4	8	**16**	28	**36**

4 × 4 = 16 28 ÷ 4 = 7 9 × 4 = 36

2.

Number of hands	2	**4**	6	**9**	10
Number of fingers	10	20	**30**	45	**50**

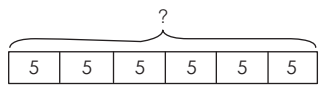
20 ÷ 5 = 4 6 × 5 = 30 45 ÷ 5 = 9 10 × 5 = 50

3.

Number of vases	3	**5**	7	8	**10**
Number of flowers	30	50	**70**	**80**	100

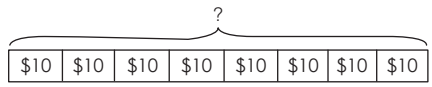
50 ÷ 10 = 5 7 × 10 = 70 8 × 10 = 80 100 ÷ 10 = 10

4. **24**
5. **15**
6. **30**
7. **45**
8. **30**
9. **80**
10. **36**
11. **70**
12. **8**
13. **35**
14. **6**
15. **2**
16. **4**
17. **8**
18. **6**
19. **9**
20. **3**
21. **10**
22. **2**
23. **4**
24. **5 × 4 = 20** **20 ÷ 5 = 4**
    4 × 5 = 20 **20 ÷ 4 = 5**
25. **6 × 4 = 24** **24 ÷ 6 = 4**
    4 × 6 = 24 **24 ÷ 4 = 6**
26. **7 × 10 = 70** **70 ÷ 7 = 10**
    10 × 7 = 70 **70 ÷ 10 = 7**
27. **8 × 5 = 40** **40 ÷ 8 = 5**
    5 × 8 = 40 **40 ÷ 5 = 8**
28. **3 × 4 = 12** **12 ÷ 3 = 4**
    4 × 3 = 12 **12 ÷ 4 = 3**
29.



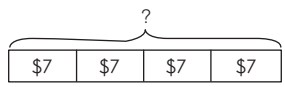
6 × 5 = 30
There are **30** apples altogether.

30.



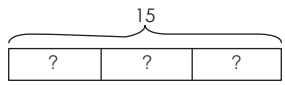
8 × $10 = $80
Sam spends **$80** in 8 weeks.

31.



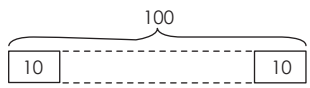
4 × $7 = $28
Leyla spent **$28** altogether.

32.



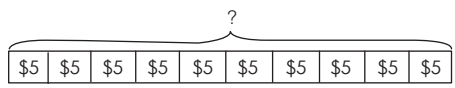
15 ÷ 3 = 5
There are **5** buttons on each shirt.

33.



100 ÷ 10 = 10
Alicia needs **10** bags.

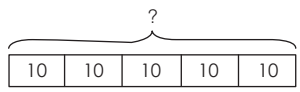
34.



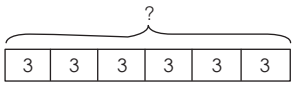
10 × $5 = $50
Maggy will save **$50** in 10 months.

Unit 7: Fun With Models (Multiplying and Dividing)

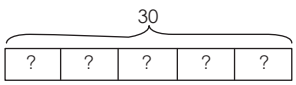
1.



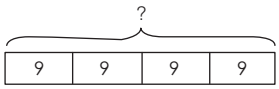
5 × 10 = 50
There are **50** stamps in all.

2. 

6 × 3 = 18
There are **18** eggs in 6 bags.

3. 

30 ÷ 5 = 6
Each of them has **6** oranges.

4. 

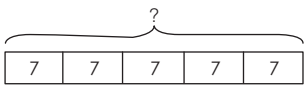
4 × 9 = 36
He buys **36** stickers.

5. 

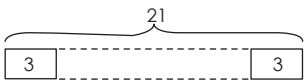
18 ÷ 2 = 9
There were **9** sunflowers in each vase.

6. 

36 ÷ 4 = 9
Ms. Drew gave the markers to **9** children.

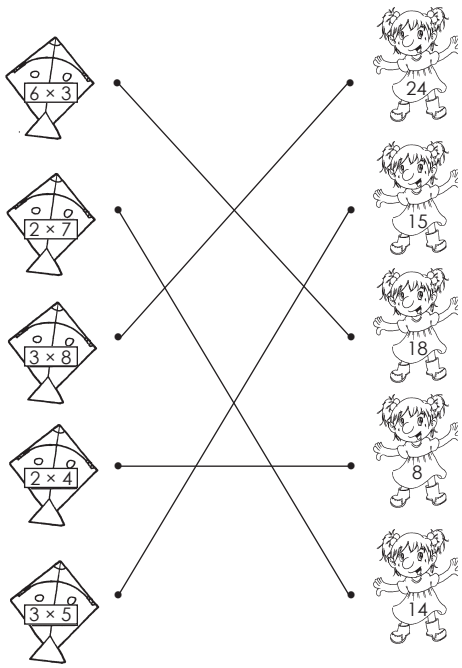
7. 

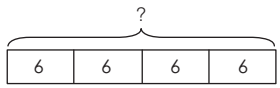
5 × 7 = 35
5 children have **35** library books.

8. 

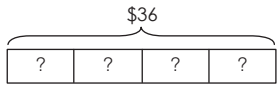
21 ÷ 3 = 7
She used **7** plates.

Review 3

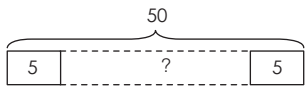
1. 

6. **8**
7. **9**
8. **6**
9. **8**
10. **7**
11. **4**
12. **2**
13. **3**
14. **5**
15. **10**
16. 

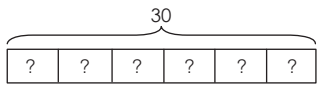
4 × 6 = 24
There are **24** pencils in 4 boxes.

17. 

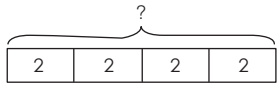
$36 ÷ 4 = $9
Each of them received **$9**.

18. 

50 ÷ 5 = 10
Dad gives the muffins to **10** friends.

19. 

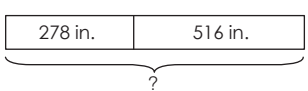
30 ÷ 6 = 5
There are **5** pieces of each color.

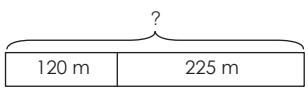
20. 

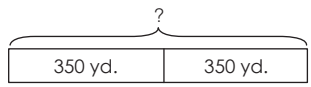
4 × 2 = 8
She buys **8** gloves.

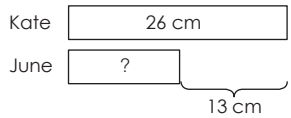
Unit 8: Length

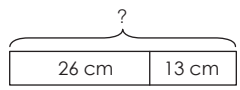
1. **more**
2. **less**
3. **less**
4. **more**
5. **less**
6. (a) **A**
   (b) **B**
   (c) 4 yd. – 2 yd. = **2** yd.
   (d) 6 yd. – 4 yd. = **2** yd.
   (e) 6 yd. – 4 yd. = **2** yd.
   (f) 6 yd. – 2 yd. = **4** yd.
7. (a) **C**
   (b) **B**
   (c) 5 m – 3 m = **2** m
   (d) 3 m – 1 m = **2** m
   (e) 5 m – 1 m = **4** m
   (f) 5 m – 3 m = **2** m
8. *Lines should be the appropiate lengths and labeled correctly.*
9. *Lines should be the appropiate lengths and labeled correctly.*

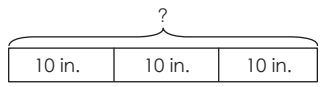
10. *Lines should be the appropiate lengths and labeled correctly.*
11. **5**
12. **3**
13. **4**
14. **2**
15. **longer than**
16. **longer than**
17. **shorter than**
18. (a) 9 cm – 2 cm = **7** cm
    (b) 13 cm – 10 cm = **3** cm
    (c) 11 cm – 6 cm = **5** cm
    (d) 10 cm – 0 cm = **10** cm
    (e) 10 cm – 3 cm = **7** cm
    (f) 7 cm – 5 cm = **2** cm
    (g) **pencil**
    (h) **eraser**
19. (a) 8 in. – 0 in. = **8** in.
    (b) 5 in. – 0 in. = **5** in.
    (c) 12 in. – 0 in. = **12** in.
    (d) 9 in. – 0 in. = **9** in.
    (e) **C**
    (f) **B**
    (g) 12 in. – 8 in. = **4** in.
    (h) **C**
    9 in. + 3 in. = 12 in.
20. **116**
$$\begin{array}{r} {\scriptstyle 1} \\ 38 \\ +\ 78 \\ \hline 116 \end{array}$$
21. **36**
$$\begin{array}{r} {\scriptstyle 0\ 11\ 15} \\ 1\!\not{2}\!\not{5} \\ -\ 89 \\ \hline 36 \end{array}$$
22. **515**
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 236 \\ +\ 279 \\ \hline 515 \end{array}$$
23. **150**
$$\begin{array}{r} 468 \\ -\ 318 \\ \hline 150 \end{array}$$
24. **135**
$$\begin{array}{r} {\scriptstyle 1\ 9\ 10} \\ 2\!\not{0}\!\not{0} \\ -\ 65 \\ \hline 135 \end{array}$$
25. **520**
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 399 \\ +\ 121 \\ \hline 520 \end{array}$$
26. 

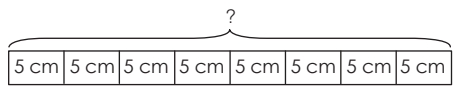
$$\begin{array}{r} {\scriptstyle 1} \\ 278 \\ +\ 516 \\ \hline 794 \end{array}$$
278 + 516 = 794
The total length of curtains Miles sewed on both days was **794** in.
27. 

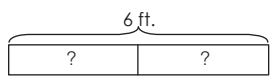
$$\begin{array}{r} 120 \\ +\ 225 \\ \hline 345 \end{array}$$
120 + 225 = 345
She travels **345** m.
28. 

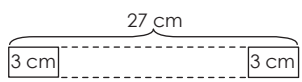
$$\begin{array}{r} {\scriptstyle 1} \\ 350 \\ +\ 350 \\ \hline 700 \end{array}$$
350 + 350 = 700
He jogs **700** yd.
29. (a) 

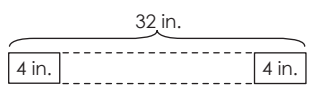
$$\begin{array}{r} 26 \\ -\ 13 \\ \hline 13 \end{array}$$
26 – 13 = 13
June's ribbon is **13** cm long.
(b) 

$$\begin{array}{r} 26 \\ +\ 13 \\ \hline 39 \end{array}$$
26 + 13 = 39
The total length of the 2 ribbons is **39** cm long.
30. 

3 × 10 = 30
The length of the 3 boxes was **30** in.
31. 

8 × 5 = 40
The length of 8 toothpicks was **40** cm.
32. 

6 ÷ 2 = 3
The length of each piece of rope is **3** ft.
33. 

27 ÷ 3 = 9
Leo has **9** pieces of paper.
34. 

32 ÷ 4 = 8
Gabrielle has **8** pieces of string.

Unit 9: Mass

1. **less than**
   The toy ship rises on the balance, so it is lighter.
2. **more than**
   The camera sinks on the balance, so it is heavier.
3. **less than**
4. **more than**
5. **more than**
6. **3**
7. **45**
8. **6**
9. **4**
10. **6**
11. (a) **4**
    (b) **5**
    (c) **2**

(d) **bunch of bananas**
(e) **pineapple**
(f) **bunch of bananas**, **watermelon**, **pineapple**

12. (a) **171**
(b) **135**
(c) **38**
(d) **Anne**
(e) **Alan**
(f) **Anne**, **Susan**, **Alan**

13. **4**
14. **6**
15. **20**
16. **9**
17. **19**
18. **200 g**
19. **450 g**
20. **50 g**
21. **380 g**
22. 500 g – 300 g = **200 g**
23. 30 lb. – 10 lb. = **20 lb.**
24. (a) 20 oz. + 20 oz. = **40 oz.**
(b) 10 oz. + 10 oz. = **20 oz.**
(c) 40 oz. – 20 oz. = **20 oz.**
25. (a) **200 g**
(b) **500 g**
(c) 500 – 200 = **300 g**

26. (b) **35 oz.**

$$\begin{array}{r} 20 \\ +\ 15 \\ \hline 35 \end{array}$$

(c) **610 g**

$$\begin{array}{r} {\scriptstyle 1} \\ 360 \\ +\ 250 \\ \hline 610 \end{array}$$

(d) **530 lb.**

$$\begin{array}{r} {\scriptstyle 1} \\ 170 \\ +\ 360 \\ \hline 530 \end{array}$$

(e) **650 kg**

$$\begin{array}{r} {\scriptstyle 1} \\ 415 \\ +\ 235 \\ \hline 650 \end{array}$$

(f) **646 lb.**

$$\begin{array}{r} {\scriptstyle 1} \\ 509 \\ +\ 137 \\ \hline 646 \end{array}$$

(g) **861 g**

$$\begin{array}{r} {\scriptstyle 1} \\ 816 \\ +\ 45 \\ \hline 861 \end{array}$$

HAMSTER

27. (a) **353 oz.**

$$\begin{array}{r} 585 \\ -\ 232 \\ \hline 353 \end{array}$$

(b) **309 g**

$$\begin{array}{r} {\scriptstyle 0\,16} \\ 6\not{1}\not{6} \\ -\ 307 \\ \hline 309 \end{array}$$

(c) **450 lb.**

$$\begin{array}{r} {\scriptstyle 8\,10} \\ \not{9}\not{0}0 \\ -\ 450 \\ \hline 450 \end{array}$$

(d) **189 kg**

$$\begin{array}{r} {\scriptstyle 2\,16} \\ \not{3}\not{6}9 \\ -\ 180 \\ \hline 189 \end{array}$$

(e) **199 lb.**

$$\begin{array}{r} {\scriptstyle 7\,12\,18} \\ \not{8}\not{3}\not{8} \\ -\ 639 \\ \hline 199 \end{array}$$

(f) **115 g**

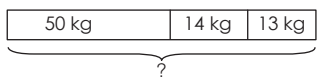
$$\begin{array}{r} {\scriptstyle 1\,10} \\ 6\not{2}0 \\ -\ 505 \\ \hline 115 \end{array}$$

(g) **149 oz.**

$$\begin{array}{r} {\scriptstyle 1\,13\,16} \\ \not{2}\not{4}\not{6} \\ -\ 97 \\ \hline 149 \end{array}$$

PUZZLES

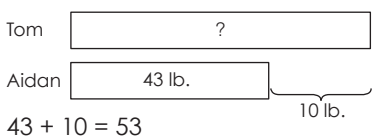
28.



$$\begin{array}{r} 50 \\ +\ 14 \\ \hline 64 \end{array} \qquad \begin{array}{r} 64 \\ +\ 13 \\ \hline 77 \end{array}$$

50 + 14 + 13 = 77
She uses **77** kg of ingredients altogether.

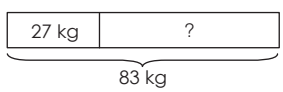
29.



$$\begin{array}{r} 43 \\ +\ 10 \\ \hline 53 \end{array}$$

43 + 10 = 53
Tom's mass is **53** lb.

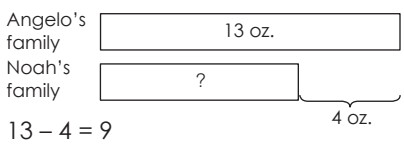
30.



$$\begin{array}{r} {\scriptstyle 7\,13} \\ \not{8}\not{3} \\ -\ 27 \\ \hline 56 \end{array}$$

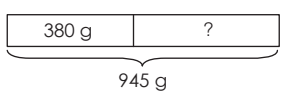
83 – 27 = 56
He uses **56** kg of cement.

31.



13 – 4 = 9
Noah's family eats **9** oz. of rice every week.

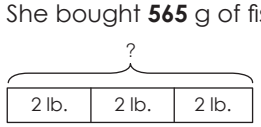
32.



$$\begin{array}{r} {\scriptstyle 8\,14} \\ \not{9}\not{4}5 \\ -\ 380 \\ \hline 565 \end{array}$$

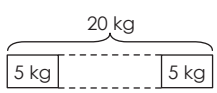
945 – 380 = 565
She bought **565** g of fish.

33.



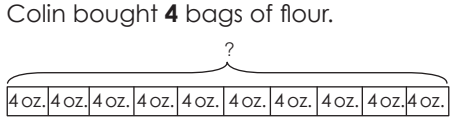
3 × 2 lb. = 6 lb.
The total mass of the 3 bags of tomatoes was **6** lb.

34.



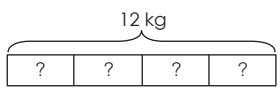
20 ÷ 5 = 4
Colin bought **4** bags of flour.

35.



10 × 4 = 40
The total mass of the 10 plums is **40** oz.

36.



12 ÷ 4 = 3
The mass of each bag of strawberries was **3** kg.

Review 4

1. (a) 6 cm – 1 cm = **5** cm
   (b) 10 cm – 1 cm = **9** cm
   (c) 12 cm – 1 cm = **11** cm
   (d) 3 cm – 1 cm = **2** cm
   (e) 11 cm – 9 cm = **2** cm
   (f) 5 cm – 2 cm = **3** cm
   (g) 5 cm + 11 cm = **16** cm
   (h) **rubber band**, **hair clip**, **ribbon**, **comb**
2. **2**
3. **A**
4. **400**
5. (a) 6 cm – 1 cm = **5** cm
   (b) 11 cm – 1 cm = **10** cm
   (c) 8 cm – 1 cm = **7** cm
   (d) 8 cm – 1 cm = **7** cm
   (e) 7 cm – 5 cm = **2** cm
   (f) 10 cm – 7 cm = **3** cm
   (g) **spoon**, **fork**
   (h) **paintbrush**, **spoon**, **fork**, **key** / **paintbrush**, **fork**, **spoon**, **key**
6. **17**
7. (a) **3**
   (b) **4**
   (c) **2**
   (d) **toy plane**
   (e) **toy ship**
8. **C**
9. **more than**
   The bag of rice sinks on the balance. This shows that the bag of rice is heavier.
10. **less than**
    The purse rises on the balance. This shows that the purse is lighter.
11. **108**

$$\begin{array}{r} 40 \\ +\ 68 \\ \hline 108 \end{array}$$

12. **356**

$$\begin{array}{r} {\scriptstyle 3\ 12 15} \\ \cancel{4}\ \cancel{3}\ \cancel{5} \\ -\ 79 \\ \hline 356 \end{array}$$

13. **289**

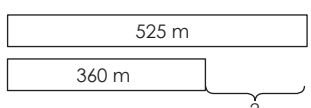
$$\begin{array}{r} {\scriptstyle 5\ 10 16} \\ \cancel{6}\ \cancel{1}\ \cancel{6} \\ -\ 327 \\ \hline 289 \end{array}$$

14. **350**

$$\begin{array}{r} {\scriptstyle 1} \\ 125 \\ +\ 225 \\ \hline 350 \end{array}$$

15. **772**

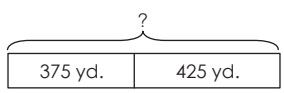
$$\begin{array}{r} {\scriptstyle 1} \\ 609 \\ +\ 163 \\ \hline 772 \end{array}$$

16. 

525 – 360 = 165

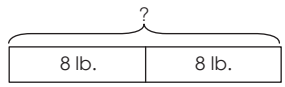
$$\begin{array}{r} {\scriptstyle 4\ 12} \\ \cancel{5}\ \cancel{2}\ 5 \\ -\ 360 \\ \hline 165 \end{array}$$

David's house is **165** m farther from the shopping complex than from the supermarket.

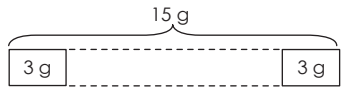
17. 

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 375 \\ +\ 425 \\ \hline 800 \end{array}$$

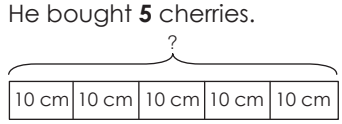
375 + 425 = 800
Amanda jogs **800** yd. from her house to the stadium.

18. 

2 × 8 = 16
The total mass of her luggage was **16** lb.

19. 

15 ÷ 3 = 5
He bought **5** cherries.

20. 

5 × 10 = 50
The length of the 5 rulers was **50** cm.

Mid-Review

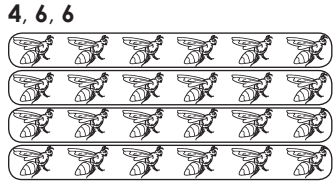
1. (a) 11 – 3 = **8** in.
   (b) 7 – 2 = **5** in.
   (c) 11 – 2 = **9** in.
   (d) 15 – 5 = **10** in.
   (e) A = 8 – 1 = **7** in.
   7 + 5 = **12** in.
   (f) **E**, **D**, **B**, **A**, **C**
2. **18**
3. **six hundred and forty-seven**
4. **303**, **330**, **405**, **415**, **540**
5. 3 × 9 = **27**
6. 237 + 508 = **745**

$$\begin{array}{r} {\scriptstyle 1} \\ 237 \\ +\ 508 \\ \hline 745 \end{array}$$

7. 717 – 169 = **548**

$$\begin{array}{r} {\scriptstyle 6\ 10 17} \\ \cancel{7}\ \cancel{1}\ \cancel{7} \\ -\ 169 \\ \hline 548 \end{array}$$

8. 10 + 590 = **600**
9. 120 + 10 = **130**
10. **6** × **2** = **12**
    2 × **6** = **12**
    12 ÷ **6** = **2**
    12 ÷ **2** = **6**
11. **680**, **740**
    720 – 700 = 20
    660 + 20 = 680
    720 + 20 = 740
12. **4**, **6**, **6**



13. (a) **173 cm**

$$\begin{array}{r} {\scriptstyle 1} \\ 105 \\ +\ 68 \\ \hline 173 \end{array}$$

    (b) **16 lb.**

$$\begin{array}{r} {\scriptstyle 2\ 12} \\ \cancel{3}\ \cancel{2} \\ -\ 16 \\ \hline 16 \end{array}$$

    (c) **8** × 3 = 24

(d) **870**

$$\begin{array}{r} {\scriptstyle 1} \\ 612 \\ +\ 258 \\ \hline 870 \end{array}$$

(e) **175**

$$\begin{array}{r} {\scriptstyle 2\ 9\ 10} \\ 3\,\not{0}\,\not{0} \\ -\ 125 \\ \hline 175 \end{array}$$

14. (a) **83 fewer yellow roses**
280 – 197 = 83

$$\begin{array}{r} {\scriptstyle 1\ 17\ 10} \\ 2\,\not{8}\,\not{0} \\ -\ 197 \\ \hline 83 \end{array}$$

(b) **595 red and white roses**
315 + 280 = 595

$$\begin{array}{r} 315 \\ +\ 280 \\ \hline 595 \end{array}$$

15. **$16**

$65 – $49 = $16

$$\begin{array}{r} {\scriptstyle 5\ 15} \\ \not{6}\,\not{5} \\ -\ 49 \\ \hline 16 \end{array}$$

16. **460 cm of cloth**
185 + 275 = 460

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 185 \\ +\ 275 \\ \hline 460 \end{array}$$

17. **7 cards**
35 ÷ 5 = 7

18. (a) **310 dog biscuits**
460 – 150 = 310

$$\begin{array}{r} 460 \\ -\ 150 \\ \hline 310 \end{array}$$

(b) **770 dog biscuits**
460 + 310 = 770

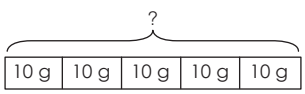
$$\begin{array}{r} 460 \\ +\ 310 \\ \hline 770 \end{array}$$

19. **21 cacti**
3 × 7 = 21

20. **330 yd.**
150 yd. + 180 yd. = 330 yd.

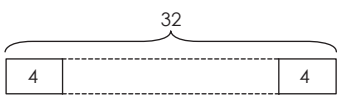
$$\begin{array}{r} {\scriptstyle 1} \\ 150 \\ +\ 180 \\ \hline 330 \end{array}$$

21.



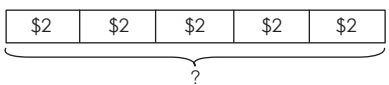
5 × 10 = 50
The mass of the 5 kiwis is **50 g**.

22.



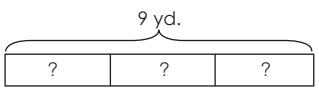
32 ÷ 4 = 8
Mrs. Coleman collected the pages from **8** students.

23.



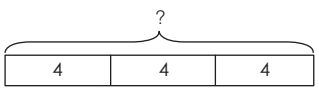
5 × $2 = $10
She receives **$10** from Monday to Friday.

24.



9 ÷ 3 = 3
The length of cloth received by each girl was **3 yd**.

25.



3 × 4 = 12
He needs **12 days** to make 3 bookshelves.

Challenge Questions

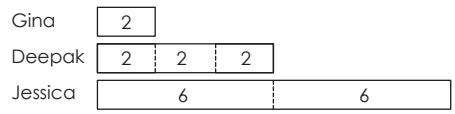
1. first digit: ⑧ or 9
second digit: 0, ①, 2, 3, 4, 5 or 6
third digit: 8 – 1 = 7
The 3-digit number is **817**.

2. Use the guess-and-check method.

Guess	$50	$10	$5	$1	Total
1	1	6	3	1	$126
2	1	7	1	1	$126

He used **one $50 bill, seven $10 bills, one $5 bill, and one $1 bill** to pay for the skateboard.

3.

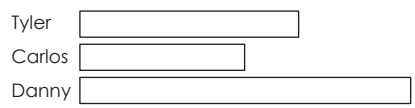


2 × 6 = 12
Jessica has **12** apples.

4. 0 1 2 ③ 4 5 6 7 8 ⑨
9 is 3 times 3.
Both are odd numbers.
Mr. Schneider's mass is **93 kg**.

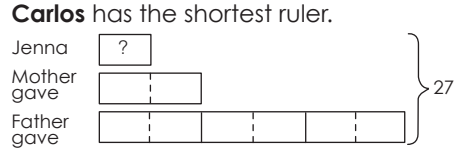
5. 9 ÷ 3 = 3
The sum of the 2 facing pages must be 9.
page 4 + page 5 = 9
The 2 facing pages are **4** and **5**.

6.



Carlos has the shortest ruler.

7.



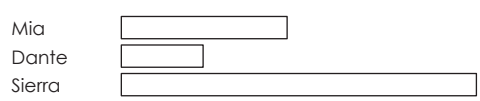
27 ÷ 9 = 3
She had **3** marbles in the beginning.

8. $100 – $20 = $80
$80 ÷ 4 = $20
He would receive four $20 bills.
Simon had one **$100 bill** in the beginning.

9. 2 + 3 + 4 = 9
The 3 numbers are **2**, **3**, and **4**.

10. 3 × 7 = 21
The sum of the 2 facing pages is 21.
page 10 + page 11 = 21
The 2 facing pages are **10** and **11**.

11.



Sierra is the heaviest among the 3 children.

SOLUTIONS
Singapore Math Level 2B

Unit 10: Mental Calculations

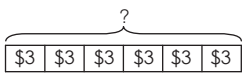
1. 64 + 10 = 74
   74 – 2 = **72**
2. 89 + 10 = 99
   99 – 3 = **96**
3. 26 + 10 = 36
   36 – 5 = **31**
4. 18 + 10 = 28
   28 – 1 = **27**
5. 57 + 10 = 67
   67 – 4 = **63**
6. 45 + 10 = 55
   55 – 2 = **53**
7. 37 + 10 = 47
   47 – 5 = **42**
8. 78 + 10 = 88
   88 – 2 = **86**
9. 94 + 10 = 104
   104 – 1 = **103**
10. 56 + 10 = 66
    66 – 3 = **63**
11. 127 + 10 = 137
    137 – 5 = **132**
12. 764 + 10 = 774
    774 – 1 = **773**
13. 2 + 6 = 8
    260 + 8 = **268**
14. 948 + 10 = 958
    958 – 2 = **956**
15. 435 + 10 = 445
    445 – 3 = **442**
16. 4 + 6 = 10
    580 + 10 = **590**
17. 623 + 10 = 633
    633 – 1 = **632**
18. 806 + 10 = 816
    816 – 1 = **815**
19. 366 + 10 = 376
    376 – 5 = **371**
20. 119 + 10 = 129
    129 – 4 = **125**
21. 3 + 6 = 9
    510 + 9 = **519**
22. 30 + 20 = 50
    806 + 50 = **856**
23. 20 + 80 = 100
    703 + 100 = **803**
24. 90 + 70 = 160
    100 + 160 = **260**
25. 20 + 40 = 60
    408 + 60 = **468**
26. 762 + 100 = 862
    862 – 30 = **832**
27. 503 + 100 = 603
    603 – 10 = **593**
28. 869 + 100 = 969
    969 – 20 = **949**
29. 20 + 60 = 80
    603 + 80 = **683**
30. 700 + 200 = 900
    900 + 70 = **970**
31. 300 + 600 = 900
    900 + 23 = **923**
32. 100 + 800 = 900
    900 + 65 = **965**
33. 200 + 500 = 700
    700 + 48 = **748**
34. 600 + 300 = 900
    900 + 57 = **957**
35. 100 + 700 = 800
    800 + 95 = **895**
36. 100 + 200 = 300
    300 + 8 = **308**
37. 500 + 400 = 900
    900 + 88 = **988**
38. 600 + 100 = 700
    700 + 45 = **745**
39. 100 + 600 = 700
    700 + 99 = **799**
40. 700 + 200 = 900
    900 + 56 = **956**
41. 52 – 10 = 42
    42 + 5 = **47**
42. 46 – 10 = 36
    36 + 1 = **37**
43. 81 – 10 = 71
    71 + 2 = **73**
44. 30 – 10 = 20
    20 + 3 = **23**
45. 8 – 3 = 5
    80 + 5 = **85**
46. 9 – 5 = 4
    70 + 4 = **74**
47. 4 – 4 = 0
    60 + 0 = **60**
48. 28 – 10 = 18
    18 + 1 = **19**
49. 3 – 1 = 2
    90 + 2 = **92**
50. 9 – 7 = 2
    50 + 2 = **52**

51. 620 – 10 = 610
610 + 5 = **615**
52. 404 – 10 = 394
394 + 4 = **398**
53. 5 – 4 = 1
870 + 1 = **871**
54. 10 – 2 = 8
730 + 8 = **738**
55. 9 – 9 = 0
510 + 0 = **510**
56. 264 – 10 = 254
254 + 3 = **257**
57. 9 – 6 = 3
320 + 3 = **323**
58. 183 – 10 = 173
173 + 5 = **178**
59. 6 – 3 = 3
910 + 3 = **913**
60. 534 – 10 = 524
524 + 2 = **526**
61. 415 – 100 = 315
315 + 70 = **385**
62. 338 – 100 = 238
238 + 10 = **248**
63. 80 – 60 = 20
507 + 20 = **527**
64. 60 – 50 = 10
800 + 10 = **810**
65. 100 – 10 = 90
509 + 90 = **599**
66. 80 – 20 = 60
201 + 60 = **261**
67. 50 – 40 = 10
708 + 10 = **718**
68. 90 – 70 = 20
405 + 20 = **425**
69. 164 – 100 = 64
64 + 20 = **84**
70. 626 – 100 = 526
526 + 40 = **566**
71. 700 – 300 = 400
400 + 58 = **458**
72. 800 – 600 = 200
200 + 34 = **234**
73. 900 – 800 = 100
100 + 5 = **105**
74. 600 – 500 = 100
100 + 31 = **131**
75. 900 – 900 = 0
0 + 78 = **78**
76. 500 – 100 = 400
400 + 5 = **405**
77. 700 – 400 = 300
300 + 84 = **384**
78. 400 – 200 = 200
200 + 35 = **235**
79. 800 – 700 = 100
100 + 76 = **176**
80. 900 – 800 = 100
100 + 80 = **180**

Unit 11: Money

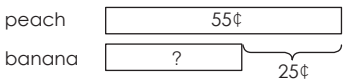
1. (a) **$10.00**
(b) **$2.50**
(c) **$44.40**
(d) **$39.85**
(e) **$67.90**
(f) **$50.05**
(g) **$19.70**
(h) **87¢**
(i) **$12.15**
(j) **$20.25**
2. (a) **twelve**, **thirty**
(b) **forty-five**, **forty-five**
(c) **sixty-seven**, **five**
(d) **fifteen**, **fifty-five**
(e) **seven**, **ninety**
(f) **eleven**, **eighty**
(g) **thirty-six**, **sixty**
(h) **twenty**, **fifteen**
(i) **fifty-nine**, **ninety-five**
(j) **seventy**, **seventy**
3. 10¢ + 10¢ + 5¢ + 5¢ + 5¢ + 5¢ = **40¢**
4. $5 + $1 + $1 + $0.50 = **$7.50**
5. (3 × $10) + (4 × $5) + $0.25 + $0.25 + $0.10 + $0.10 + $0.05 + $0.05 + $0.05 = **$50.85**
6. $10 + $5 + $1 + (4 × $0.25) + $0.10 = **$17.10**
7. (2 × $5) + (4 × $1) + $0.10 + (3 × $0.05) = **$14.25**
8. 50¢ + 10¢ = **60¢**
9. $10.00 + $0.50 = **$10.50**
10. $11.00 + $0.10 = **$11.10**
11. $7.00 + $0.05 = **$7.05**
12. $2.00 + $0.40 = **$2.40**
13. (a) **225**
(b) **1,050**
(c) **3,575**
(d) **5,005**
(e) **2,735**
(f) **8,905**
(g) **10,030**
(h) **4,040**
(i) **1,595**
(j) **2,055**
14. (a) **4.16**
(b) **18.75**
(c) **30.05**
(d) **8.05**
(e) **17.50**
(f) **9.60**
(g) **10.05**
(h) **76.00**
(i) **0.18**
(j) **0.59**
15. (a) **32.50, 26.50**
(b) **George**
16. (a) **45.90, 55.85**
(b) **Marcos**
17. (a) **67.80, 65.90**
(b) **65.90, 67.80**
(c) **Mrs. Morales**
18. (a) **19.60**
(b) **26.50**
(c) **Samira**
(d) **Kate**

19.



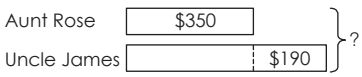
6 × $3 = $18
She paid **$18** for the books.

20.



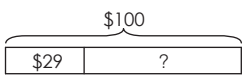
55¢ – 25¢ = 30¢
55¢ + 30¢ = 85¢
The total cost of the peach and the banana is **85¢**.

21.



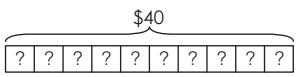
$350 + $190 = $540
Uncle James earns $540 in a week.
$350 + $540 = $890
Both of them earn **$890** in a week.

22.



$100 – $29 = $71
She received **$71** in change.

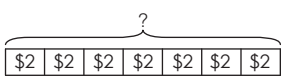
23.



$40 ÷ 10 = $4
He spends **$4** per day.

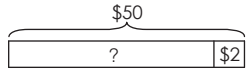
Review 5

1. **$99.09**
2. 814 + 100 = 914
   914 – 10 = **904**
3. **fifty-five**, **fifteen**
4. $62.00 + $0.55 = **$62.55**
5. **6,285¢**
6. 600 + 200 = 800
   800 + 4 = **804**
7. (a) **35.55**, **30.05**
   (b) **Jerome**
8. 546 – 10 = 536
   536 + 1 = **537**
9. **$38.40**
10. 743 – 100 = 643
    643 + 40 = **683**
11. $36.00 + $0.10 = **$36.10**
12. (a) **42**, **45**
    (b) **Uncle Sam**
13. **one hundred**, **ten**
14. 686 + 10 = 696
    696 – 5 = **691**
15. 700 – 400 = 300
    300 + 12 = **312**
16.



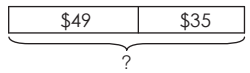
7 × $2 = $14
Emma saves **$14** in a week.

17.



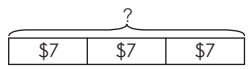
$50 – $2 = $48
The calculator cost **$48**.

18.



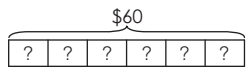
$49 + $35 = $84
She spent **$84** in all.

19.



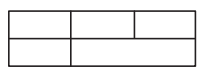
3 × $7 = $21
Uncle Ronald gives **$21** to his children in all.

20.

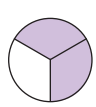
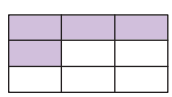
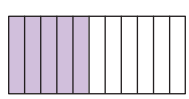
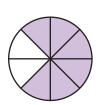
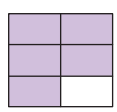


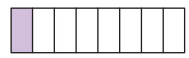
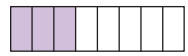
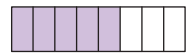
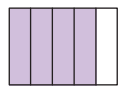
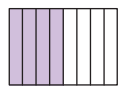
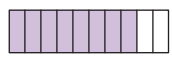
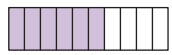
$60 ÷ 6 = $10
Each towel costs **$10**.

Unit 12: Fractions

1.  ☑
2.  ☐
3.  ☑
4.  ☐
5. $\frac{1}{4}$
6. $\frac{3}{8}$
7. $\frac{2}{6}$
8. $\frac{7}{12}$
9. $\frac{4}{7}$

Possible answers:

10. 
11. 
12. 
13. 
14. 

15. (a) **2**
    (b) **4**
    (c) $\frac{2}{4}$
    (d) $\frac{2}{4}$
16. (a) **4**
    (b) **6**
    (c) $\frac{4}{6}$
    (d) $\frac{2}{6}$
17. (a) **4**, **8**
    (b) $\frac{4}{8}$
18. (a) **2**, **5**
    (b) $\frac{2}{5}$
19. (a) **6**, **7**
    (b) $\frac{6}{7}$
20. (a) **6**
    (b) $\frac{2}{8}$
    (c) $\frac{6}{8}$
    (d) $\frac{2}{8}$, $\frac{6}{8}$
21. (a) **2**
    (b) $\frac{3}{5}$
    (c) $\frac{2}{5}$
    (d) $\frac{3}{5}$, $\frac{2}{5}$
22. $\frac{2}{3}$
23. $\frac{1}{2}$
24. $\frac{4}{7}$
25. $\frac{7}{11}$
26. $\frac{3}{12}$
27. $\frac{3}{5}$
28. $\frac{2}{8}$
29. $\frac{6}{9}$
30. $\frac{3}{4}$
31. $\frac{5}{6}$
32. $\frac{1}{2}$
33. $\frac{3}{6}$
34. $\frac{5}{7}$
35. $\frac{2}{6}$
36. $\frac{1}{5}$
37. $\frac{6}{12}$
38. $\frac{1}{8}$ 
    $\frac{3}{8}$ 
    $\frac{5}{8}$ 
39. $\frac{2}{6}$ 
    $\frac{2}{8}$ 
    $\frac{2}{10}$ 
40. $\frac{1}{4}$ 
    $\frac{2}{4}$ 
    $\frac{3}{4}$ 
41. $\frac{3}{9}$ 
    $\frac{2}{9}$ 
42. $\frac{4}{5}$ 
    $\frac{4}{8}$ 
43. $\frac{8}{10}$ 
    $\frac{6}{10}$ 
44. $\frac{1}{5}$
45. $\frac{2}{8}$
46. $\frac{3}{8}$
47. $\frac{2}{3}$
48. $\frac{4}{5}$
49. $\frac{7}{10}$
50. $\frac{5}{5}$
51. $\frac{1}{10}$

52. $\frac{5}{7}$

53. $\frac{1}{5}$

54. $\frac{4}{7}$

55. $\frac{3}{9}$

56. $\frac{5}{6}, \frac{3}{6}, \frac{1}{6}$

57. $\frac{2}{3}, \frac{2}{8}, \frac{2}{9}$

58. $\frac{4}{10}, \frac{4}{11}, \frac{4}{12}$

59. $\frac{1}{12}, \frac{1}{11}, \frac{1}{10}$

60. $\frac{3}{9}, \frac{3}{6}, \frac{3}{5}$

61. $\frac{5}{12}, \frac{5}{10}, \frac{5}{9}$

62. $\frac{3}{8}$

63. $\frac{7}{10}$

64. $\frac{10}{12}$

65. $\frac{6}{7}$

66. $\frac{8}{9}$

67. $\frac{4}{5}$

68. $\frac{4}{6}$

69. $\frac{6}{11}$

70. $\frac{2}{4}$

71. $\frac{2}{9}$

72. $\frac{5}{7}$

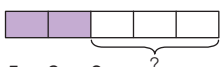
73. $\frac{9}{10}$

74. $\frac{2}{6}$

75. $\frac{3}{11}$

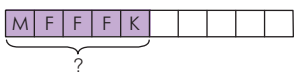
76. $\frac{3}{8}$

77. $\frac{3}{12}$

78. 

$\frac{5}{5} - \frac{2}{5} = \frac{3}{5}$

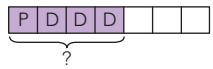
$\frac{3}{5}$ of the bread is left.

79. 

M: Mom
F: Dad
K: Kaylee

$\frac{1}{10} + \frac{3}{10} + \frac{1}{10} = \frac{5}{10}$

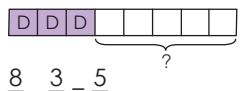
They have eaten $\frac{5}{10}$ of the pizza.

80. 

P: Pencil case
D: Drawing materials

$\frac{1}{7} + \frac{3}{7} = \frac{4}{7}$

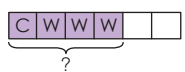
She used $\frac{4}{7}$ of her weekly allowance.

81. 

D: Drank

$\frac{8}{8} - \frac{3}{8} = \frac{5}{8}$

$\frac{5}{8}$ of the pitcher of orange juice was left.

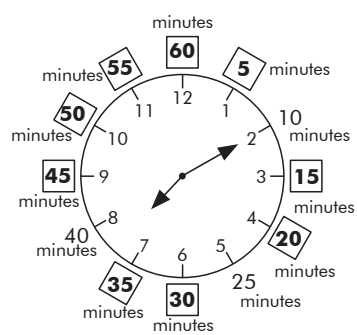
82. 

C: Children
W: Women

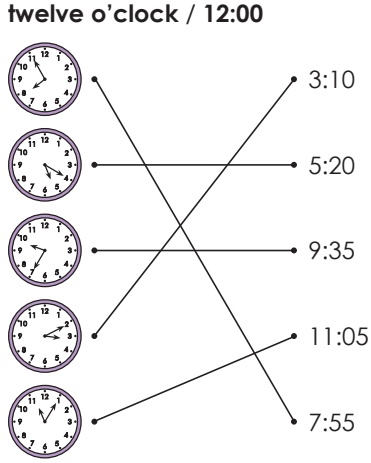
$\frac{1}{6} + \frac{3}{6} = \frac{4}{6}$

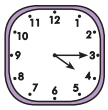
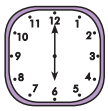
$\frac{4}{6}$ of the people at the party are children and women.

Unit 13: Time

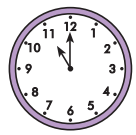
1. 

7:10

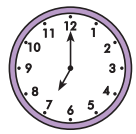
2. 4 × 5 minutes = **20**
3. 9 × 5 minutes = **45**
4. 1 × 5 minutes = **5**
5. 3 × 5 minutes = **15**
6. **ten o'clock / 10:00**
7. **five-fifteen / 5:15**
8. **one-thirty / 1:30**
9. **twelve o'clock / 12:00**
10. 

15. 
16. 
17. 
18. 
19. 
20. 
21. 
22. 
23. 
24. 
25. 
26. 
27. 
28. 
29. 
30. 

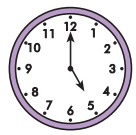
31. **A.M.**
32. **P.M.**
33. **P.M.**
34. **A.M.**
35. **P.M.**
36. **8:30**,
    8 o'clock / 8:00
37. **5 o'clock / 5:00**,
    4:30
38. **7:30**, **6:30**
39. **9 o'clock / 9:00**,
    12 o'clock / 12:00
40. **6:15**, **10:15**
41. **11:00 A.M.**



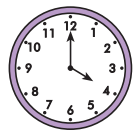
42. **7:00 P.M.**



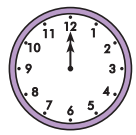
43. **5:00 A.M.**



44. **4:00 P.M.**

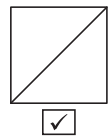


45. **12:00 noon**

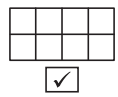


Review 6

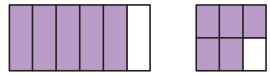
1. (b)



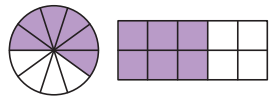
(c)

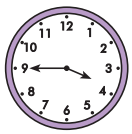
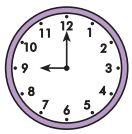


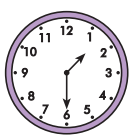
2.

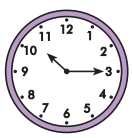


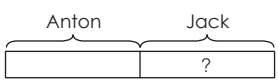
3.



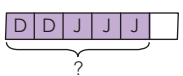
4. **10:25**
5. **5:00 / 5 o'clock**
6. **8:55**
7. **7:30**
8. 
9. 
10. 
11. 
12. $\frac{6}{7}, \frac{5}{7}, \frac{1}{7}$
13. $\frac{4}{8}, \frac{5}{8}, \frac{7}{8}$
14. 

    11 A.M.
15. 

    1:30 P.M.
16. 

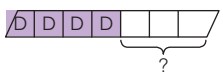
    10:15 A.M.
17. 

    $1 - \frac{1}{2} = \frac{2}{2} - \frac{1}{2} = \frac{1}{2}$

    Jack ate $\frac{1}{2}$ of the dish of nachos.
18. 

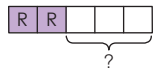
D: Deepak
J: John

    $\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$

    They ate $\frac{5}{6}$ of the melon.
19. 

D: Drank

    $1 - \frac{4}{7} = \frac{7}{7} - \frac{4}{7} = \frac{3}{7}$

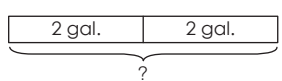
    $\frac{3}{7}$ of the milk was left in the glass.
20. 

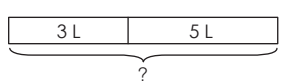
R: Read

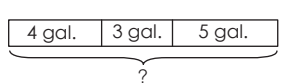
    $1 - \frac{2}{5} = \frac{5}{5} - \frac{2}{5} = \frac{3}{5}$

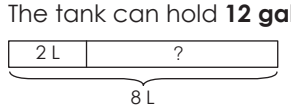
    Tariq needs to read $\frac{3}{5}$ of the book in order to complete it.

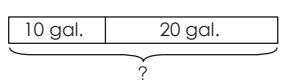
Unit 14: Volume

1. (a) **more**
   (b) **less**
2. (a) **less**
   (b) **more**
3. (a) **D**
   (b) **B**
4. (a) **B**
   (b) **A**
5. (a) **D**
   (b) **B**
6. (a) **jug**
   (b) **bowl**
   (c) 5 – 2 = **3**
   (d) 8 – 2 = **6**
7. **3**
8. **5**
9. **15**
10. **2**
11. 1 + 1 + 1 = **3**
12. 2 + 2 + 2 + 2 = **8**
13. 2 + 2 = **4**
14. 1 + 1 + 1 = **3**
15. 

    2 × 2 gal. = 4 gal.
    The fish tank is filled with **4 gal.** of water.
16. 

    3 L + 5 L = 8 L
    They prepare **8 L** of drink altogether.
17. 

    4 gal. + 3 gal. + 5 gal. = 12 gal.
    The tank can hold **12 gal.** of water.
18. 

    8 L – 2 L = 6 L
    Ayesha has **6 L** of orange juice left.
19. 

    10 gal. + 20 gal. = 30 gal.
    Mr. Benson put **30 gal.** of gas in his car in all.

20.

16 L ÷ 4 L = 4
She used **4** jugs.

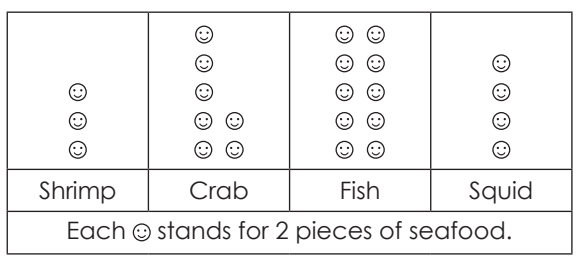
Unit 15: Graphs

1. (a) 4 × 4 =**16**
   (b) 6 × 4 = **24**
   (c) 2 × 4 = 8
   16 – 8 = **8**
   (d) 3 × 4 = 12
   24 – 12 = **12**
   (e) **monkeys**
   (f) **lions**
2. (a) **Wednesday**
   (b) 50 ÷ 5 = **10**
   (c) 4 × 10 = **40**
   (d) 7 × 10 = 70
   70 – 40 = **30**
   (e) 3 × 10 = 30
   40 – 30 = **10**
   (f) 50 + 70 = **120**
3. Rabbits → 6 ÷ 2 = 3☆
   Turtles → 10 ÷ 2 = 5☆
   Fish → 20 ÷ 2 = 10☆
   Cats → 8 ÷ 2 = 4☆
   Birds → 14 ÷ 2 = 7☆

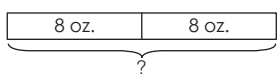
4. (a) **Coloring**
   7 × 4 = 28
   (b) **Fiction**
   3 × 4 = 12
   (c) **Coloring**
   6 × 4 = 24
   28 – 24 = 4
   (d) **4**
   4 × 4 = 16
   16 – 12 = 4
   (e) **12**
   28 – 16 = 12
5. (a) **25**
   5 × 5 = 25
   (b) **20**
   Friday → 7 × 5 = 35
   Tuesday → 3 × 5 = 15
   35 – 15 = 20
   (c) **8**
   2 × 5 = 10
   10 – 2 = 8
   (d) **95**
   Saturday → 9 × 5 = 45
   Sunday → 10 × 5 = 50
   45 + 50 = 95
   (e) **9**
   5 × 5 = 25
   25 – 16 = 9

Review 7

1. **5**
2. **2**
3. **10**
4. (a) 6 × 3 = **18**
   (b) 5 × 3 = **15**
   (c) Roast chicken → 3 × 3 = 9
   Tacos → 6 × 3 = 18
   18 – 9 = **9**
   (d) Pizza → 8 × 3 = 24
   Meatloaf → 4 × 3 = 12
   24 – 12 = **12**
   (e) Spaghetti → 5 × 3 = 15
   12 + 15 = **27**
5. (a) **jug**
   (b) **cup**
   (c) 10 – 2 = **8**
   (d) 8 – 2 = **6**
   (e) 8 + 10 + 2 = **20**
6. Shrimp → 6 ÷ 2 = 3 ☺
   Crab → 14 ÷ 2 = 7 ☺
   Fish → 20 ÷ 2 = 10 ☺
   Squid → 8 ÷ 2 = 4 ☺

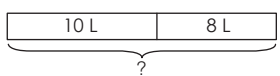


7.



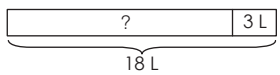
2 × 8 oz. = 16 oz.
Riley bought **16 oz.** of fruit juice.

8. (a)



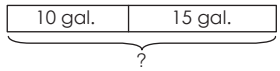
10 L + 8 L = 18 L
Li makes **18 L** of lemonade.

(b)

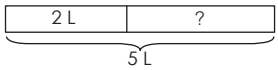


18 L – 3 L = 15 L
She will have **15 L** of lemonade left.

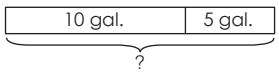
9.



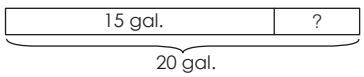
10 gal. + 15 gal. = 25 gal.
She collected **25 gal.** of rainwater altogether.

10. 

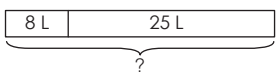
5 L – 2 L = 3 L
3 L of milk was left.

11. (a) 

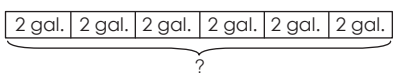
10 gal. + 5 gal. = 15 gal.
Andy bought **15 gal.** of drinks.

(b) 

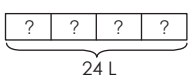
20 gal. – 15 gal. = 5 gal.
He needed to buy **5** more gallons of drinks.

12. 

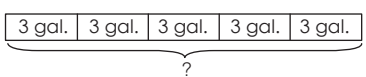
25 L + 8 L = 33 L
Eva bought **33 L** of liquid detergent altogether.

13. 

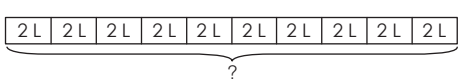
6 × 2 gal. = 12 gal.
He removed **12 gal.** of water from the tank.

14. 

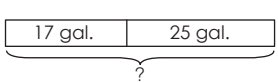
24 L ÷ 4 = 6 L
There was **6 L** of orange juice in each container.

15. 

5 × 3 gal. = 15 gal.
She collects **15 gal.** of used water every week.

16. 

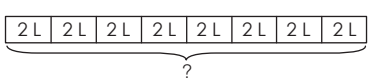
10 × 2 L = 20 L
She drinks **20 L** of water in 10 days.

17. 

17 gal. + 25 gal. = 42 gal.
He brews **42 gal.** of coffee and tea every day.

18. 

36 gal. ÷ 4 gal. = 9
She needs **9** containers.

19. 

8 × 2 L = 16 L
Alyssa bought **16 L** of detergent.

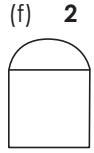
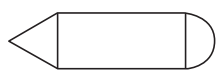
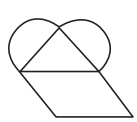
20. 

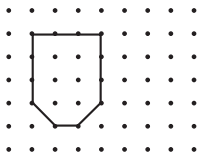
35 gal. ÷ 5 gal. = 7
He washed **7** cars if he used 35 gal. of water.

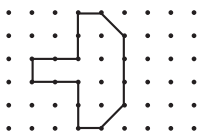
Unit 16: Lines and Surfaces

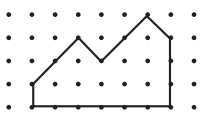
1. (a) **4**, **7**
   (b) **3**, **8**
   (c) **2**, **5**
2. **8**, **4**
3. **5**, **2**
4. **6**, **1**
5. **6, 2**
6. **4**, **1**
7. **1**
8. **6**
9. **6**
10. **1**
11. **2**
12. **6**
13. **5**
14. **0**
15. **5**

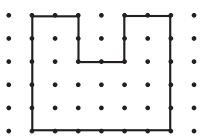
Unit 17: Shapes and Patterns

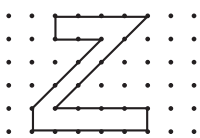
1. **rectangle**
2. **triangle**
3. **square**
4. **quarter circle**
5. **circle**
6. **triangle**
7. **semicircle**
8. **triangle, semicircle**
9. **triangle, rectangle**
10. **circle, square**
11. **triangle, quarter circle**
12. **rectangle, circle**
13. (a) **3**
    (b) **4**
    (c) **3**
    (d) **6**
    (e) **8**
    (f) **2**
14. 
15. 
16. 
17. **triangle**
18. **circle**
19. **semicircle**
20. **rectangle**
21. **quarter circle**
22. **square**

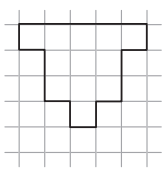
23. 

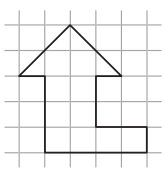
24. 

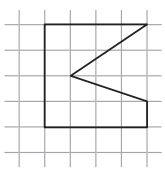
25. 

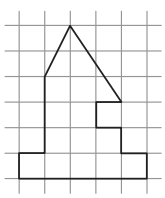
26. 

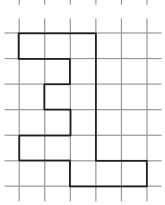
27. 

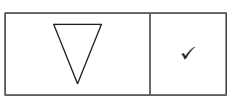
28. 

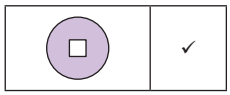
29. 

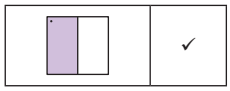
30. 

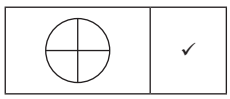
31. 

32. 

33. 

34. 

35. 

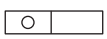
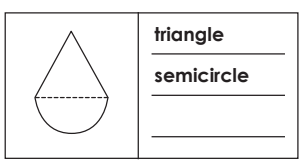
36. 

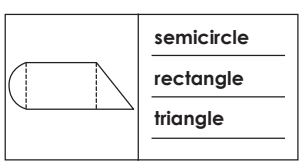
37. 

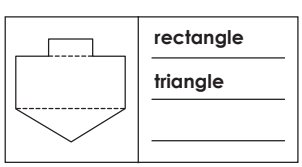
38. 

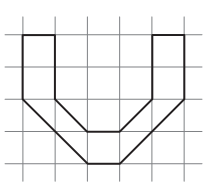
39. 

Review 8

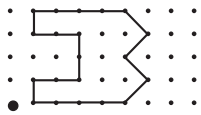
1. **circle**
2. **quarter circle**
3. **semicircle**
4. **rectangle**
5. **triangle**
6. **square**
7. **4**
8. **3**, **1**, **2**, **2**
9. △ (the smaller triangle)
10. 
11. 
12. 

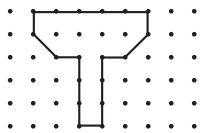
13. 

14. 

15. **5**, **5**
16. **1**
17. 

18. Color the **book**, **rectangle,** and **stamp**.

19. 

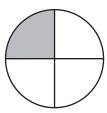
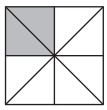
20. 

Final Review

1. $\frac{5}{8}$

2. (a) 5 × 10 = **50**
   (b) 7 × 10 = **70**
   (c) Monday → 4 × 10 = 40
   Friday → 6 × 10 = 60
   60 – 40 = **20**
   (d) Tuesday → 3 × 10 = 30
   Saturday → 8 × 10 = 80
   80 – 30 = **50**
   (e) Wednesday → 2 × 10 = 20
   40 + 20 = **60**

3. **12:20 P.M.**

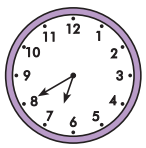
4. (a) 
   (b) 

5. 1 L + 1 L = 2 L
   1 jug can hold 2 L of water.
   3 × 2 L = **6 L**

6. 

7. 790 + 100 = 890
   890 – 30 = **860**

8. $\frac{5}{5} - \frac{2}{5} = \frac{3}{5}$

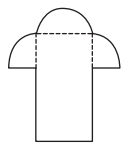
9. 

10. **semicircle**, **rectangle**

11. **C**
    $\frac{2}{4}$ of Figure C is shaded, while $\frac{1}{4}$ of the rest of the figures are shaded.

12. 10 × 10 = 100
    △ = 10
    5 × 5 = 25
    ○ = 5
    10 × 5 = **50**

13. $\frac{7}{10}$

14. 

15. $\frac{1}{9}$
    $\frac{1}{9}$ is the largest, and $\frac{1}{12}$ is the smallest.

16. **forty-eight**, **thirty**

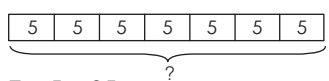
17. 345 – 100 = 245
    245 + 10 = **255**

18. **$90.80**

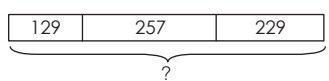
19. $\frac{5}{11} - \frac{2}{11} = \frac{3}{11}$

20. 

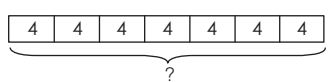
    $30 + $30 = $60
    Sydney spent **$60**.

21. 

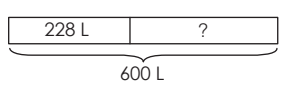
    7 × 5 = 35
    He gave **35** cans of juice to his friends.

22. 

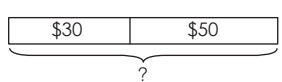
    129 + 257 = 386
    386 + 229 = 615
    615 students took part in the art competition.

23. 

    7 × 4 = 28
    He will read **28** books in a week.

24. 

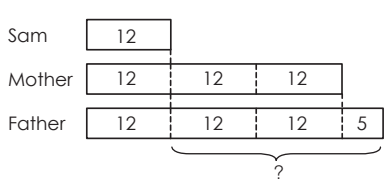
    600 L – 228 L = 372 L
    Jack makes **372 L** of fruit punch.

25. 

    $50 + $30 = $80
    Malak received **$80** in all.

Challenge Questions

1. 1 day → 4 pieces of clothing
   10 days → 10 × 4 = 40 pieces of clothing
   Mrs. Robinson sewed **40** pieces of clothing in 10 days.

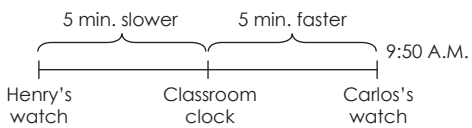
2. 

$2 \times 12 = 24$
$24 + 5 = 29$
Sam's father is **29** years older than Sam.

3.

18	**10**	**13**	41
11	**15**	**16**	42
14	**17**	**12**	43
43	42	41	

4.



$5 + 5 = 10$
10 min. before 9:50 A.M. is 9:40 A.M.
The time shown on Henry's watch was **9:40 A.M.**

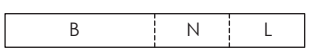
5. $2 \heartsuit \rightarrow 80$
$1 \heartsuit \rightarrow 80 \div 2 = 40$
$40 + \triangle = 120$
$\triangle = 120 - 40 = 80$
$\heartsuit + \triangle + \triangle + \triangle \rightarrow 40 + 80 + 80 + 80 =$ **280**

6. Use the guess-and-check method.

	1st number	2nd number	1st number × 2nd number
Guess 1	1	50	50
Guess 2	2	25	
Guess 3	5	10	

The result of the division of the 2 numbers in Guess 1 and Guess 2 do not equal 2.
$10 \div 5 = 2$
The 2 numbers are **5** and **10**.

7.



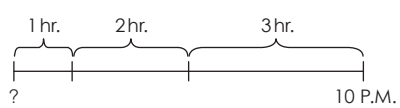
B: Best friend
N: Neighbor
L: Left

Since $\frac{1}{4}$ of the bottle of orange juice was left, the amount of juice Christopher gave to his neighbor was also $\frac{1}{4}$.

$1 - \frac{1}{4} - \frac{1}{4} = \frac{4}{4} - \frac{1}{4} - \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$

Christopher gave his best friend $\mathbf{\frac{2}{4}}$ or $\mathbf{\frac{1}{2}}$ of the bottle of orange juice.

8.

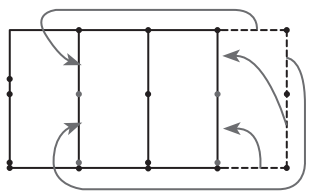


$1 + 2 + 3 = 6$ hr.
6 hr. before 10 P.M. is 4 P.M.
He started watching cartoons at **4 P.M.**

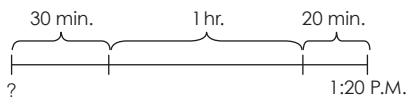
9. **26**
The types of triangles in the figure are  ,  , and .

10. Use the guess-and-check method.
$8 \times 4 = 32$
$8 \div 4 = 2$
$8 + 4 = 12$
$\leftmoon - \diamond = 8 - 4 =$ **4**

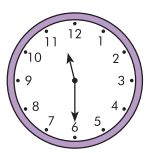
11.



12. Rico stepped out of the bathroom at 1:20 P.M.



30 min. + 1 hr. + 20 min. = 1 hr. 50 min.
1 hr. 50 min. before 1:20 P.M. is 11:30 A.M.



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