

Reference Tables

Table of Measures	
Metric	Customary
Length/Area	
1 meter (m) = 10 decimeters (dm) 1 meter (m) = 100 centimeters (cm) 1 decimeter (dm) = 10 centimeters (cm) 1 square centimeter = 1 cm ² A metric unit for measuring area. It is the area of a square that is one centimeter on each side.	1 foot (ft) = 12 inches (in.) 1 yard = 3 feet (ft) 1 mile (mi) = 5,280 feet (ft) 1 square inch = 1 in ² A customary unit for measuring area. It is the area of a square that is one inch on each side.
Liquid Volume	
1 liter (L) = 1,000 milliliters (mL)	1 tablespoon (tbsp) = $\frac{1}{2}$ fluid ounce (fl oz) 1 cup (c) = 8 fluid ounces (fl oz) 1 pint (pt) = 2 cups (c) 1 quart (qt) = 2 pints (pt) 1 gallon (gal) = 4 quarts (qt)

Reference Tables (continued)

Table of Units of Time

Time

1 minute (min) = 60 seconds (sec)

1 hour (hr) = 60 minutes

1 day = 24 hours

1 week (wk) = 7 days

1 month, about 30 days

1 year (yr) = 12 months (mo)
or about 52 weeks

1 year = 365 days

1 leap year = 366 days

Properties of Operations

Associative Property of Addition

$$(a + b) + c = a + (b + c) \quad (2 + 5) + 3 = 2 + (5 + 3)$$

Commutative Property of Addition

$$a + b = b + a \quad 4 + 6 = 6 + 4$$

Identity Property of Addition

$$a + 0 = 0 + a = a \quad 3 + 0 = 0 + 3 = 3$$

Associative Property of Multiplication

$$(a \cdot b) \cdot c = a \cdot (b \cdot c) \quad (3 \cdot 5) \cdot 7 = 3 \cdot (5 \cdot 7)$$

Commutative Property of Multiplication

$$a \cdot b = b \cdot a \quad 6 \cdot 3 = 3 \cdot 6$$

Identity Property of Multiplication

$$a \cdot 1 = 1 \cdot a = a \quad 8 \cdot 1 = 1 \cdot 8 = 8$$

Zero Property of Multiplication

$$a \cdot 0 = 0 \cdot a = 0 \quad 5 \cdot 0 = 0 \cdot 5 = 0$$

Distributive Property of Multiplication over Addition


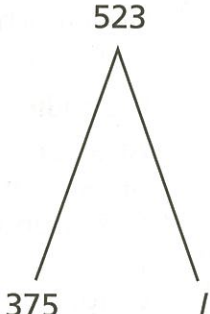

$$a \cdot (b + c) = (a \cdot b) + (a \cdot c) \quad 2 \cdot (4 + 3) = (2 \cdot 4) + (2 \cdot 3)$$

Problem Types

Addition and Subtraction Problem Types

	Result Unknown	Change Unknown	Start Unknown
Add to	<p>Aisha had 274 stamps in her collection. Then her grandfather gave her 65 stamps. How many stamps does she have now?</p> <p><i>Situation and solution equation:</i>¹ $274 + 65 = s$</p>	<p>Aisha had 274 stamps in her collection. Then her grandfather gave her some stamps. Now she has 339 stamps. How many stamps did her grandfather give her?</p> <p><i>Situation equation:</i> $274 + s = 339$</p> <p><i>Solution equation:</i> $s = 339 - 274$</p>	<p>Aisha had some stamps in her collection. Then her grandfather gave her 65 stamps. Now she has 339 stamps. How many stamps did she have to start?</p> <p><i>Situation equation</i> $s + 65 = 339$</p> <p><i>Solution equation:</i> $s = 339 - 65$</p>
Take from	<p>A store had 750 bottles of water at the start of the day. During the day, the store sold 490 bottles. How many bottles did they have at the end of the day?</p> <p><i>Situation and solution equation:</i> $750 - 490 = b$</p>	<p>A store had 750 bottles of water at the start of the day. The store had 260 bottles left at the end of the day. How many bottles did the store sell?</p> <p><i>Situation equation:</i> $750 - b = 260$</p> <p><i>Solution equation:</i> $b = 750 - 260$</p>	<p>A store had a number of bottles of water at the start of the day. The store sold 490 bottles of water. At the end of the day 260 bottles were left. How many bottles did the store have to start with?</p> <p><i>Situation equation:</i> $b - 490 = 260$</p> <p><i>Solution equation:</i> $b = 260 + 490$</p>

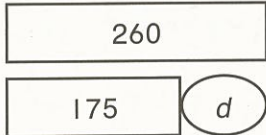
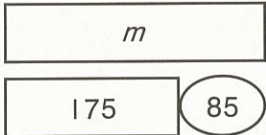
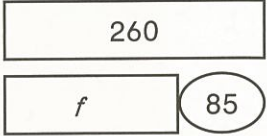
¹A situation equation represents the structure (action) in the problem situation. A solution equation shows the operation used to find the answer.

	Total Unknown	Addend Unknown	Both Addends Unknown
Put Together/ Take Apart	<p>A clothing store has 375 shirts with short sleeves and 148 shirts with long sleeves. How many shirts does the store have in all?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i> $375 + 148 = s$</p>	<p>Of the 523 shirts in a clothing store, 375 have short sleeves. The rest have long sleeves. How many shirts have long sleeves?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> $523 = 375 + l$ <i>Solution equation:</i> $l = 523 - 375$</p>	<p>A clothing store has 523 shirts. Some have short sleeves and some have long sleeves. How many of the shirts have short sleeves and how many have long sleeves?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation</i> $523 = s + l$</p>

Problem Types continued

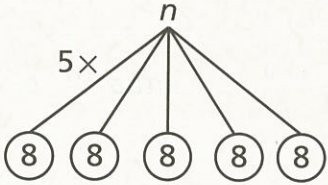
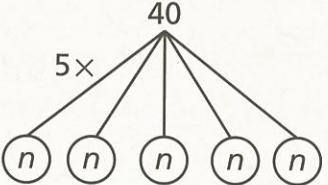
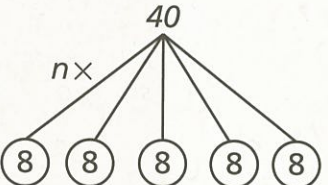
Problem Types (continued)

Addition and Subtraction Problem Types (continued)

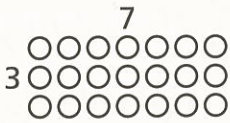
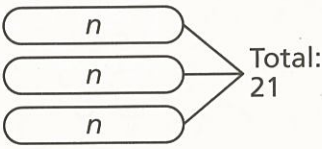
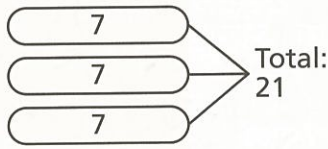
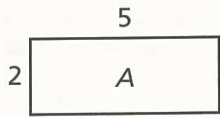
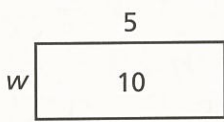
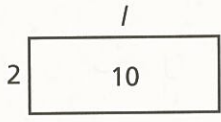
	Difference Unknown	Greater Unknown	Smaller Unknown
Compare	<p>At a zoo, the female black bear weighs 175 pounds. The male black bear weighs 260 pounds. How much more does the male black bear weigh than the female black bear?</p> <p>At a zoo, the female black bear weighs 175 pounds. The male black bear weighs 260 pounds. How much less does the female black bear weigh than the male black bear?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> $175 + d = 260$ or $d = 260 - 175$</p> <p><i>Solution equation:</i> $d = 260 - 175$</p>	<p>Leading Language At a zoo, the female black bear weighs 175 pounds. The male black bear weighs 85 pounds more than the female black bear. How much does the male black bear weigh?</p> <p>Misleading Language At a zoo, the female black bear weighs 175 pounds. The female black bear weighs 85 pounds less than the male black bear. How much does the male black bear weigh?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i> $175 + 85 = m$</p>	<p>Leading Language At a zoo, the male black bear weighs 260 pounds. The female black bear weighs 85 pounds less than the male black bear. How much does the female black bear weigh?</p> <p>Misleading Language At a zoo, the male black bear weighs 260 pounds. The male black bear weighs 85 pounds more than the female black bear. How much does the female black bear weigh?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation</i> $f + 85 = 260$ or $f = 260 - 85$</p> <p><i>Solution equation:</i> $f = 260 - 85$</p>

A comparison sentence can always be said in two ways. One way uses *more*, and the other uses *fewer* or *less*. Misleading language suggests the wrong operation. For example, it says *the female black bear weighs 85 pounds less than the male*, but you have to **add 85 pounds** to the female's weight to get the male's weight.

Multiplication and Division Problem Types

	Unknown Product	Group Size Unknown	Number of Groups Unknown
Equal Groups	<p>A teacher bought 5 boxes of markers. There are 8 markers in each box. How many markers did the teacher buy?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i> $n = 5 \cdot 8$</p>	<p>A teacher bought 5 boxes of markers. She bought 40 markers in all. How many markers are in each box?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> $5 \cdot n = 40$</p> <p><i>Solution equation:</i> $n = 40 \div 5$</p>	<p>A teacher bought boxes of 8 markers. She bought 40 markers in all. How many boxes of markers did she buy?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation</i> $n \cdot 8 = 40$</p> <p><i>Solution equation:</i> $n = 40 \div 8$</p>

Problem Types (continued)

	Unknown Product	Unknown Factor	Unknown Factor
Arrays	<p>For the yearbook photo, the drama club stood in 3 rows of 7 students. How many students were in the photo in all?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i> $n = 3 \cdot 7$</p>	<p>For the yearbook photo, the 21 students in drama club, stood in 3 equal rows. How many students were in each row?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> $3 \cdot n = 21$</p> <p><i>Solution equation:</i> $n = 21 \div 3$</p>	<p>For the yearbook photo, the 21 students in drama club, stood in rows of 7 students. How many rows were there?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> $n \cdot 7 = 21$</p> <p><i>Solution equation:</i> $n = 21 \div 7$</p>
Area	<p>The floor of the kitchen is 2 meters by 5 meters. What is the area of the floor?</p> <p><i>Math drawing:</i></p>  <p><i>Situation and solution equation:</i> $A = 5 \cdot 2$</p>	<p>The floor of the kitchen is 5 meters long. The area of the floor is 10 square meters. What is the width of the floor?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> $5 \cdot w = 10$</p> <p><i>Solution equation:</i> $w = 10 \div 5$</p>	<p>The floor of the kitchen is 2 meters wide. The area of the floor is 10 square meters. What is the length of the floor?</p> <p><i>Math drawing:</i></p>  <p><i>Situation equation:</i> $l \cdot 2 = 10$</p> <p><i>Solution equation:</i> $l = 10 \div 2$</p>

Vocabulary Activities

MathWord Power



► Word Review PAIRS

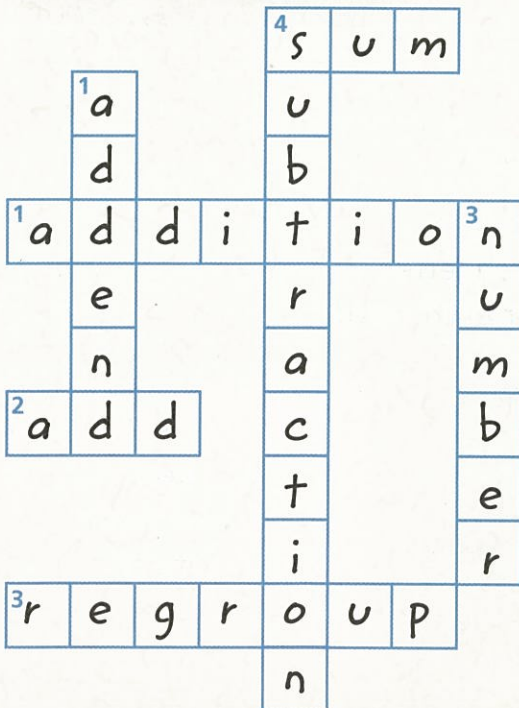
Work with a partner. Choose a word from a current unit or a review word from a previous unit. Use the word to complete one of the activities listed on the right. Then ask your partner if they have any edits to your work or questions about what you described. Repeat, having your partner choose a word.

Activities

- Give the meaning in words or gestures.
- Use the word in the sentence.
- Give another word that is related to the word in some way and explain the relationship.

► Crossword Puzzle PAIRS OR INDIVIDUALS

Create a crossword puzzle similar to the example below. Use vocabulary words from the unit. You can add other related words, too. Challenge your partner to solve the puzzle.



Across

1. _____ and subtraction are inverse operations.
2. To put amounts together
3. When you trade 10 ones for 1 ten, you _____.
4. The answer to an addition problem

Down

1. In $24 + 65 = 89$, 24 is an _____.
3. A combination of the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9.
4. The operation that you can use to find out how much more one number is than another.

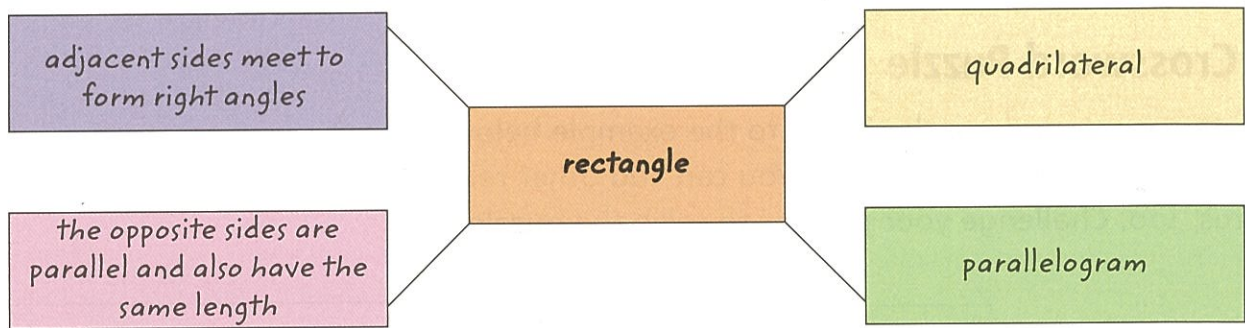
Vocabulary Activities (continued)

► Word Wall PAIRS OR SMALL GROUPS

With your teacher's permission, start a word wall in your classroom. As you work through each lesson, put the math vocabulary words on index cards and place them on the word wall. You can work with a partner or a small group choosing a word and giving the definition.

► Word Web INDIVIDUALS

Make a word web for a word or words you do not understand in a unit. Fill in the web with words or phrases that are related to the vocabulary word.



► Alphabet Challenge PAIRS OR INDIVIDUALS

Take an alphabet challenge. Choose 3 letters from the alphabet. Think of three vocabulary words for each letter. Then write the definition or draw an example for each word.

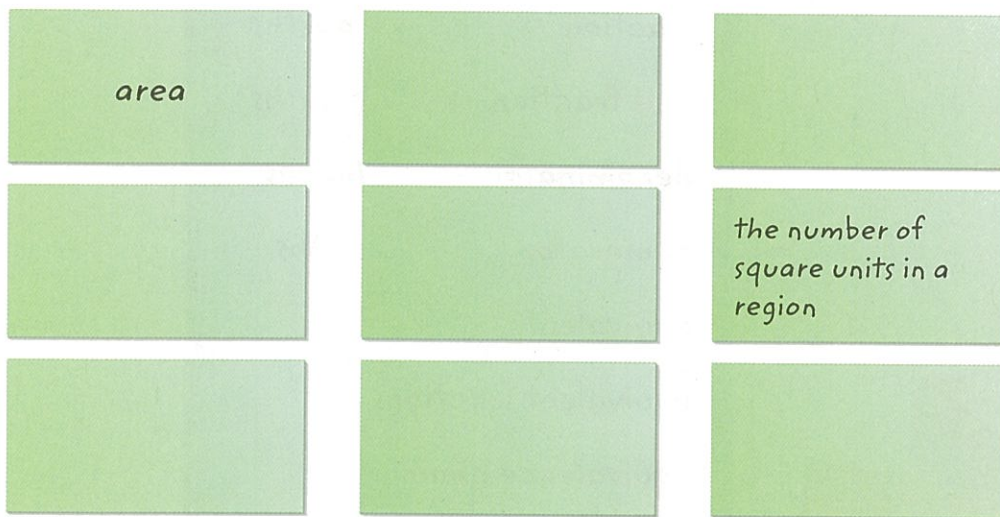
A
addition
array
area

D
data
denominator
divide

L
liter
line segment
line plot

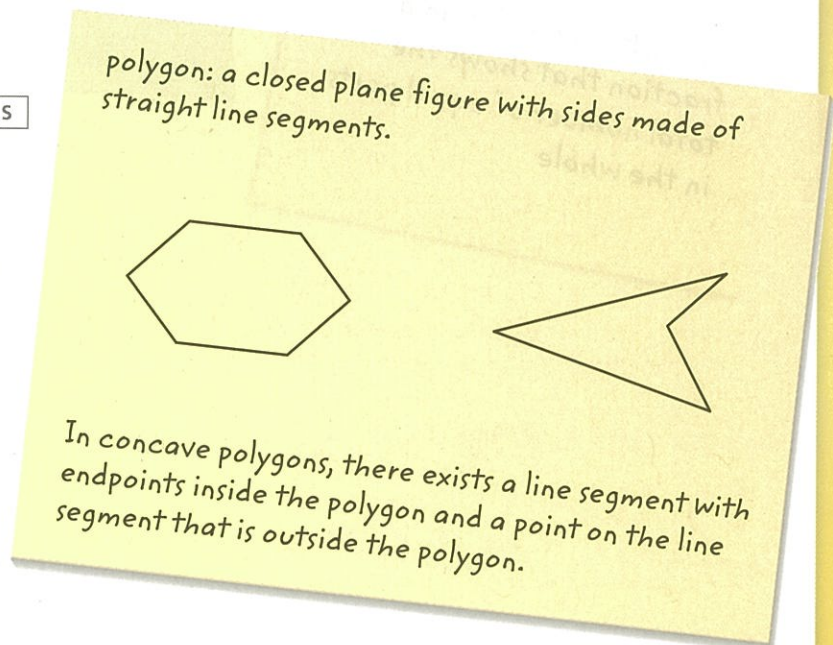
► Concentration PAIRS

Write the vocabulary words and related words from a unit on index cards. Write the definitions on a different set of index cards. Mix up both sets of cards. Then place the cards facedown on a table in an array, for example, 3 by 3 or 3 by 4. Take turns turning over two cards. If one card is a word and one card is a definition that matches the word, take the pair. Continue until each word has been matched with its definition.



► Math Journal INDIVIDUALS

As you learn new words, write them in your Math Journal. Write the definition of the word and include a sketch or an example. As you learn new information about the word, add notes to your definition.



Vocabulary Activities (continued)

► What's the Word? PAIRS

Work together to make a poster or bulletin board display of the words in a unit. Write definitions on a set of index cards. Mix up the cards. Work with a partner, choosing a definition from the index cards. Have your partner point to the word on the poster and name the matching math vocabulary word. Switch roles and try the activity again.



the bottom number in a fraction that shows the total number of equal parts in the whole

fraction fourths
unit fraction eighths
denominator halves
numerator sixths
equivalent
equivalent fractions
equivalence chain
thirds

Glossary

A

addend One of two or more numbers to be added together to find a sum.

Example: $8 + 4 = 12$

\swarrow \swarrow \swarrow
 addend addend sum

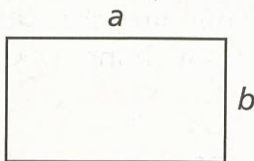
addition A mathematical operation that combines two or more numbers.

Example: $23 + 52 = 75$

\swarrow \swarrow \swarrow
 addend addend sum

adjacent (sides) Two sides of a figure that meet at a point.

Example: Sides a and b are adjacent.



A.M. The time period between midnight and noon.

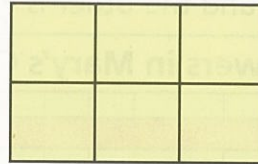
analog clock A clock with a face and hands.



angle A figure formed by two rays or two line segments that meet at an endpoint.



area The total number of square units that cover a figure.



Example: The area of the rectangle is 6 square units.

array An arrangement of objects, pictures, or numbers in columns and rows.



Associative Property of Addition (Grouping Property of Addition)

The property which states that changing the way in which addends are grouped does not change the sum.

Example: $(2 + 3) + 1 = 2 + (3 + 1)$
 $5 + 1 = 2 + 4$
 $6 = 6$

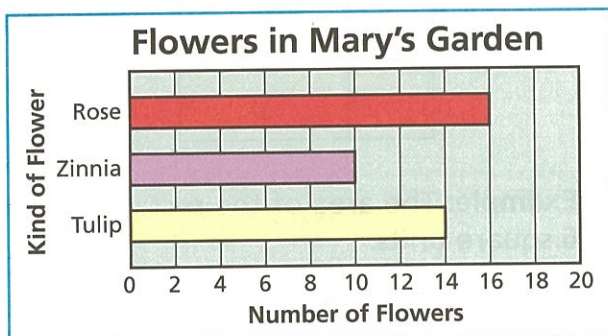
Associative Property of Multiplication (Grouping Property of Multiplication)

The property which states that changing the way in which factors are grouped does not change the product.

Example: $(2 \times 3) \times 4 = 2 \times (3 \times 4)$
 $6 \times 4 = 2 \times 12$
 $24 = 24$

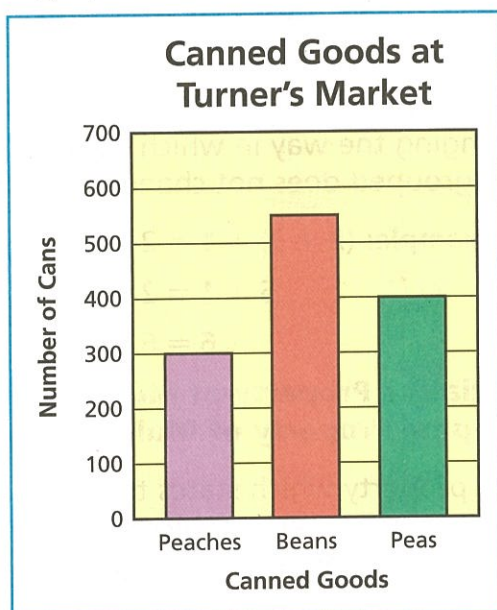
Glossary (continued)

axis (plural: **axes**) A reference line for a graph. A graph has 2 axes; one is horizontal and the other is vertical.



B

bar graph A graph that uses bars to show data. The bars may be horizontal, as in the graph above, or vertical, as in the graph below.



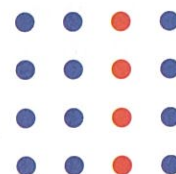
C

capacity The amount a container can hold.

centimeter (cm) A metric unit used to measure length.

100 centimeters = 1 meter

column A part of a table or array that contains items arranged vertically.



Commutative Property of Addition (Order Property of Addition) The property which states that changing the order of addends does not change the sum.

Example: $3 + 7 = 7 + 3$

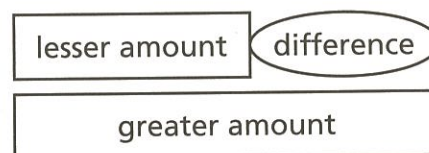
$$10 = 10$$

Commutative Property of Multiplication (Order Property of Multiplication) The property which states that changing the order of factors does not change the product.

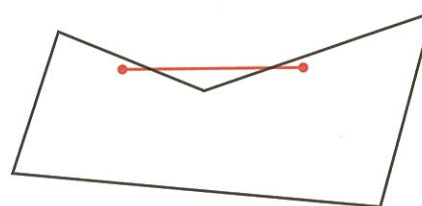
Example: $5 \times 4 = 4 \times 5$

$$20 = 20$$

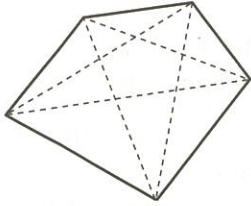
comparison bars Bars that represent the greater amount, lesser amount, and difference in a comparison problem.



concave A polygon for which you can connect two points inside the polygon with a segment that passes outside the polygon.



convex A polygon is convex if all of its diagonals are inside it.



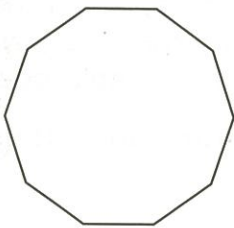
cup (c) A customary unit of measure used to measure capacity.

- 1 cup = 8 fluid ounces
- 2 cups = 1 pint
- 4 cups = 1 quart
- 16 cups = 1 gallon

D

data Pieces of information.

decagon A polygon with 10 sides.



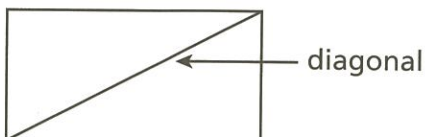
decimeter (dm) A metric unit used to measure length

1 decimeter = 10 centimeters

denominator The bottom number in a fraction that shows the total number of equal parts in the whole.

Example: $\frac{1}{3}$ ← denominator

diagonal A line segment that connects two corners of a figure and is not a side of the figure.



difference The result of subtraction or of comparing.

digit Any of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

digital clock A clock that displays the hour and minutes with numbers.



Distributive property You can multiply a sum by a number, or multiply each addend by the number and add the products; the result is the same.

Example:

$$\begin{aligned} 3 \times (2 + 4) &= (3 \times 2) + (3 \times 4) \\ 3 \times 6 &= 6 + 12 \\ 18 &= 18 \end{aligned}$$

dividend The number that is divided in division.

Examples:

$$\begin{array}{c} 12 \div 3 = 4 \\ \uparrow \\ \text{dividend} \end{array}$$

$$\begin{array}{c} 4 \\ 3 \overline{)12} \\ \uparrow \\ \text{dividend} \end{array}$$

division The mathematical operation that separates an amount into smaller equal groups to find the number of groups or the number in each group.

Example: $12 \div 3 = 4$ is a division number sentence.

divisor The number that you divide by in division.

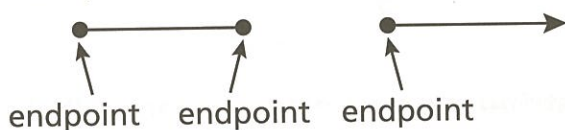
$$\begin{array}{c} 12 \div 3 = 4 \\ \uparrow \\ \text{divisor} \end{array} \quad \begin{array}{c} 4 \\ 3 \overline{)12} \\ \uparrow \\ \text{divisor} \end{array}$$

Glossary (continued)

E

elapsed time The time that passes between the beginning and the end of an activity.

endpoint The point at either end of a line segment or the beginning point of a ray.



equation A mathematical sentence with an equals sign.

Examples: $11 + 22 = 33$
 $75 - 25 = 50$

equivalent Equal, or naming the same amount.

equivalent fractions Fractions that name the same amount.

Example: $\frac{1}{2}$ and $\frac{2}{4}$
equivalent fractions

estimate About how many or about how much.

even number A whole number that is a multiple of 2. The ones digit in an even number is 0, 2, 4, 6, or 8.

expanded form A number written to show the value of each of its digits.

Examples:

$$347 = 300 + 40 + 7$$

$$347 = 3 \text{ hundreds} + 4 \text{ tens} + 7 \text{ ones}$$

expression A combination of numbers, variables, and/or operation signs. An expression does not have an equals sign.

Examples: $4 + 7$ $a - 3$

F

factors Numbers that are multiplied to give a product.

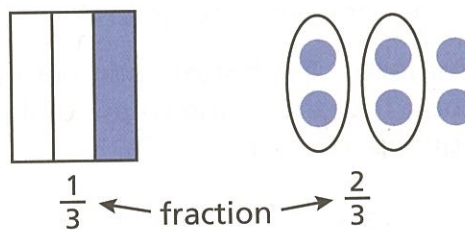
Example: $4 \times 5 = 20$
factor factor product

fluid ounce (fl oz) A unit of liquid volume in the customary system that equals $\frac{1}{8}$ cup or 2 tablespoons.

foot (ft) A customary unit used to measure length.

$$1 \text{ foot} = 12 \text{ inches}$$

fraction A number that names part of a whole or part of a set.



frequency table A table that shows how many times each event, item, or category occurs.

Frequency Table	
Age	Tally
7	1
8	3
9	5
10	4
11	2

function table A table of ordered pairs that shows a function.

For every input number, there is only one possible output number.

Rule: add 2	
Input	Output
1	3
2	4
3	5
4	6

G

gallon (gal) A customary unit used to measure capacity.

1 gallon = 4 quarts = 8 pints = 16 cups

gram (g) A metric unit of mass.

One paper clip has a mass of about 1 gram.

1,000 grams = 1 kilogram

greater than (>) A symbol used to compare two numbers.

Example: $6 > 5$

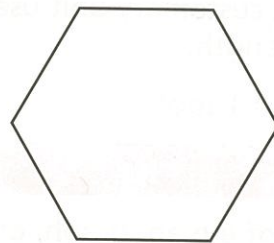
6 is greater than 5.

group To combine numbers to form new tens, hundreds, thousands, and so on.

H

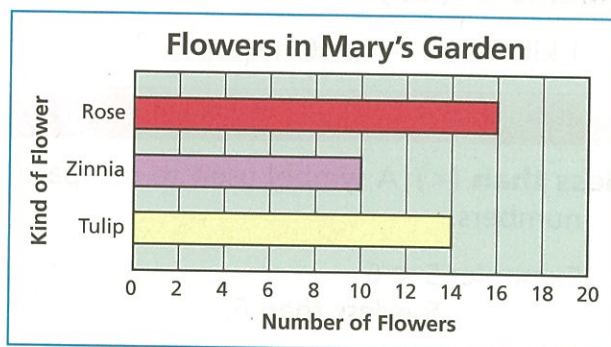
height A vertical distance, or how tall something is.

hexagon A polygon with six sides.



horizontal Extending in two directions, left and right.

horizontal bar graph A bar graph with horizontal bars.



I

Identity Property of Addition If 0 is added to a number, the sum equals that number.

Example: $3 + 0 = 3$

Identity Property of Multiplication The product of 1 and any number equals that number.

Example: $10 \times 1 = 10$

Glossary (continued)

improper fraction A fraction in which the numerator is equal to or is greater than the denominator. Improper fractions are equal to or greater than 1. $\frac{5}{5}$ and $\frac{8}{3}$ are improper fractions.

inch (in.) A customary unit used to measure length.

$$12 \text{ inches} = 1 \text{ foot}$$

K

key A part of a map, graph, or chart that explains what symbols mean.

kilogram (kg) A metric unit of mass.

$$1 \text{ kilogram} = 1,000 \text{ grams}$$

kilometer (km) A metric unit of length.

$$1 \text{ kilometer} = 1,000 \text{ meters}$$

L

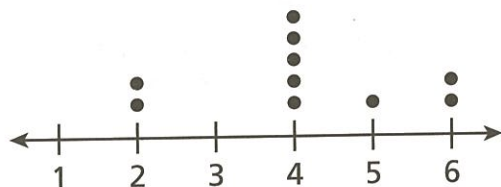
less than (<) A symbol used to compare numbers.

Example: $5 < 6$
5 is less than 6.

line A straight path that goes on forever in opposite directions.



line plot A diagram that shows frequency of data on a number line. Also called a *dot plot*.



line segment A part of a line. A line segment has two endpoints.



liquid volume A measure of how much a container can hold. Also called *capacity*.

liter (L) A metric unit used to measure capacity.

$$1 \text{ liter} = 1,000 \text{ milliliters}$$

M

mass The amount of matter in an object.

mental math A way to solve problems without using pencil and paper or a calculator.

meter (m) A metric unit used to measure length.

$$1 \text{ meter} = 100 \text{ centimeters}$$

method A procedure, or way, of doing something.

mile (mi) A customary unit of length.

$$1 \text{ mile} = 5,280 \text{ feet}$$

milliliter (mL) A metric unit used to measure capacity.

$$1,000 \text{ milliliters} = 1 \text{ liter}$$

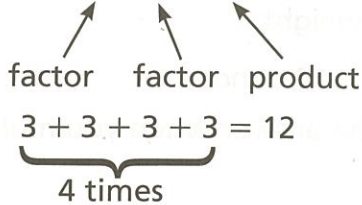
mixed number A whole number and a fraction.

$1\frac{3}{4}$ is a mixed number.

multiple A number that is the product of the given number and any whole number.

multiplication A mathematical operation that combines equal groups.

Example: $4 \times 3 = 12$



N

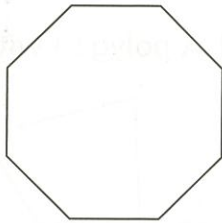
number line A line on which numbers are assigned to lengths.

numerator The top number in a fraction that shows the number of equal parts counted.

Example: $\frac{1}{3}$ ← numerator

O

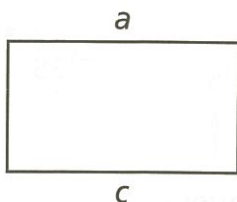
octagon A polygon with eight sides.



odd number A whole number that is not a multiple of 2. The ones digit in an odd number is 1, 3, 5, 7, or 9.

opposite sides Sides of a polygon that are across from each other; they do not meet at a point.

Example: Sides *a* and *c* are opposite.



Order of operations A set of rules that state the order in which the operations in an expression should be done.

STEP 1: Perform operations inside parentheses first.

STEP 2: Multiply and divide from left to right.

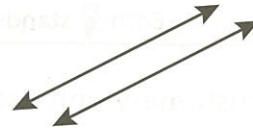
STEP 3: Add and subtract from left to right.

ounce (oz) A customary unit used to measure weight.

16 ounces = 1 pound

P

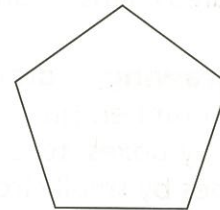
parallel lines Two lines that are the same distance apart.



parallelogram A quadrilateral with both pairs of opposite sides parallel.



pentagon A polygon with five sides.

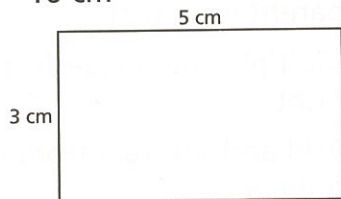


Glossary (continued)

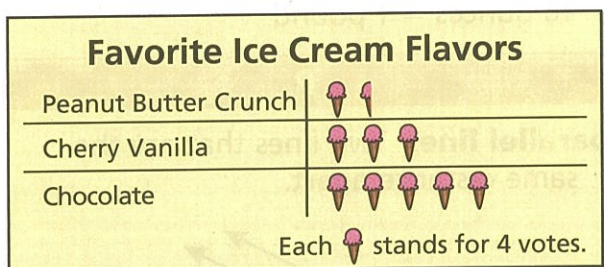
perimeter The distance around a figure.

Example:

$$\text{Perimeter} = 3 \text{ cm} + 5 \text{ cm} + 3 \text{ cm} + 5 \text{ cm} = 16 \text{ cm}$$



pictograph A graph that uses pictures or symbols to represent data.



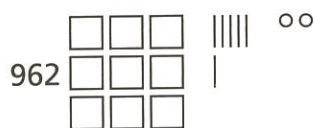
pint (pt) A customary unit used to measure capacity.

$$1 \text{ pint} = 2 \text{ cups}$$

place value The value assigned to the place that a digit occupies in a number.



place value drawing A drawing that represents a number. Hundreds are represented by boxes, tens by vertical lines, and ones by small circles.



P.M. The time period between noon and midnight.

polygon A closed plane figure with sides made up of straight line segments.

pound (lb) A customary unit used to measure weight.

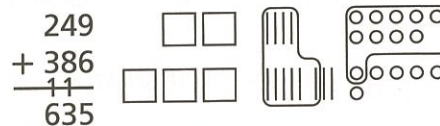
$$1 \text{ pound} = 16 \text{ ounces}$$

product The answer when you multiply numbers.

Example: $4 \times 7 = 28$

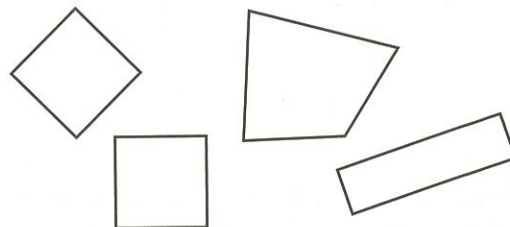


proof drawing A drawing used to show that an answer is correct.



Q

quadrilateral A polygon with four sides.



quart (qt) A customary unit used to measure capacity.

$$1 \text{ quart} = 4 \text{ cups}$$

quotient The answer when you divide numbers.

Examples:

$$35 \div 7 = 5$$

↑
quotient

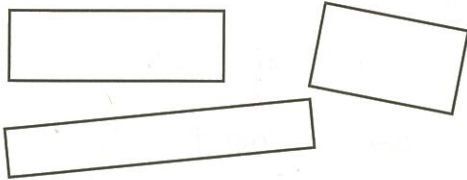
$$\begin{array}{r} 5 \leftarrow \text{quotient} \\ 7 \overline{)35} \end{array}$$

R

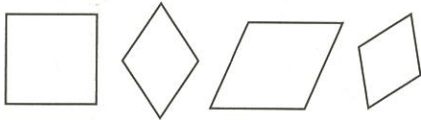
ray A part of a line that has one endpoint and goes on forever in one direction.



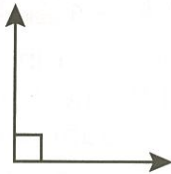
rectangle A parallelogram that has 4 right angles.



rhombus A parallelogram with equal sides.

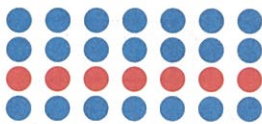


right angle An angle that measures 90° .



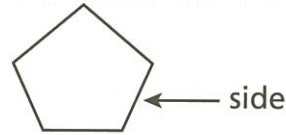
round To find about how many or how much by expressing a number to the nearest ten, hundred, thousand, and so on.

row A part of a table or array that contains items arranged horizontally.

**S**

scale An arrangement of numbers in order with equal intervals.

side (of a figure) One of the line segments that make up a polygon.



simplify To write an equivalent fraction with a smaller numerator and denominator.

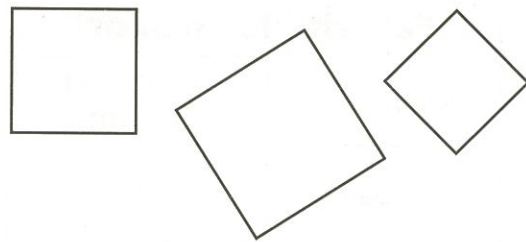
situation equation An equation that shows the action or the relationship in a problem.

Example: $35 + n = 40$

solution equation An equation that shows the operation to perform in order to solve the problem.

Example: $n = 40 - 35$

square A rectangle with four sides of the same length.



square number The product of a whole number and itself.

Example: $4 \times 4 = 16$

↑
square number

Glossary (continued)

square unit A unit of area equal to the area of a square with one-unit sides.

standard form The name of a number written using digits.

Example: 1,829

subtract To find the difference of two numbers.

Example: $18 - 11 = 7$

subtraction A mathematical operation on two numbers that gives the difference.

Example: $43 - 40 = 3$

sum The answer when adding two or more addends.

Example: $37 + 52 = 89$

T

table An easy-to-read arrangement of data, usually in rows and columns.

Favorite Team Sport	
Sport	Number of Students
Baseball	35
Soccer	60
Basketball	40

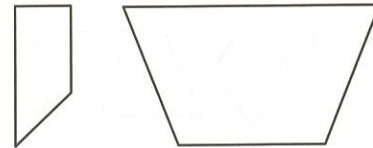
tally marks Short line segments drawn in groups of 5. Each mark, including the slanted mark, stands for 1 unit.

means 13
 5 5 3

total The answer when adding two or more addends. The sum of two or more numbers.

Example: $672 + 228 = 900$

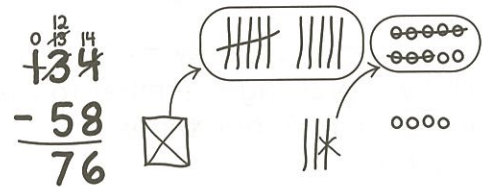
trapezoid A quadrilateral with exactly one pair of parallel sides.



triangle A polygon with three sides.

U

ungroup To open up 1 in a given place to make 10 of the next smaller place value in order to subtract.



unit fraction A fraction whose numerator is 1. It shows one equal part of a whole.

Example: $\frac{1}{4}$

unit square A square whose area is 1 square unit.

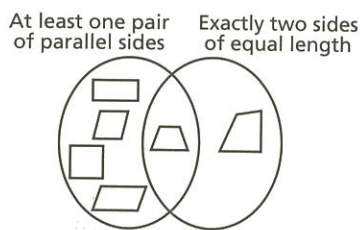
V

variable A letter or symbol used to represent an unknown number in an algebraic expression or equation.

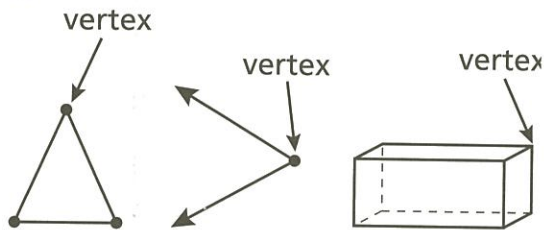
Example: $2 + n$

n is a variable.

Venn diagram A diagram that uses circles to show the relationship among sets of objects.



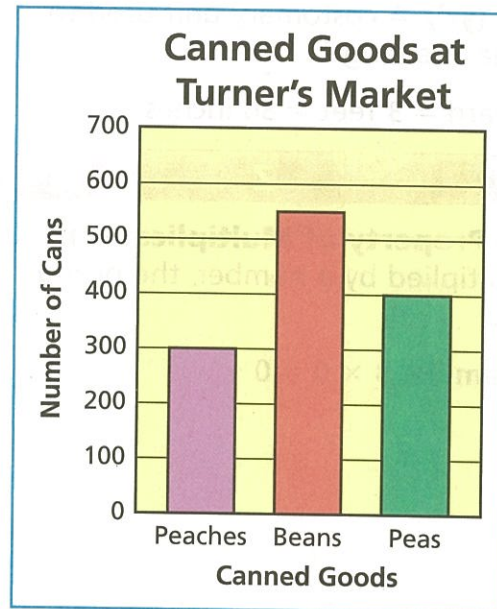
vertex A point where sides, rays, or edges meet.



vertical Extending in two directions, up and down.



vertical bar graph A bar graph with vertical bars.



W

weight The measure of how heavy something is.

word form A name of a number written using words instead of digits.

Example: Nine hundred eighty-four

Glossary (continued)

Y

yard (yd) A customary unit used to measure length.

$$1 \text{ yard} = 3 \text{ feet} = 36 \text{ inches}$$

Z

Zero Property of Multiplication If 0 is multiplied by a number, the product is 0.

Example: $3 \times 0 = 0$