Vocabulary Flash Cards

addend *Review*	**angle** *Review*
area *Review*	**bar graph** *Review*
capacity *Review*	**composite number** *Review*
cubic units *Review*	**difference** *Review*

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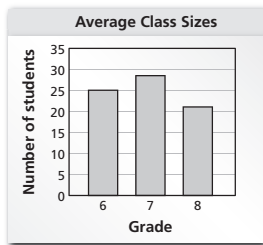
Vocabulary Flash Cards

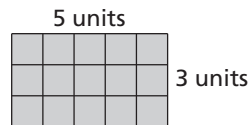|	
A figure formed by two rays with the same endpoint	A number to be added to another number. 2 or 3 in the sum $2 + 3$.
A graph in which the lengths of bars are used to represent and compare data	The amount of surface covered by a figure; Area is measured in square units such as square feet (ft^2) or square meters (m^2). 5 units 3 units $A = 5 \times 3 = 15$ square units
A whole number greater than 1 that has factors other than 1 and itself 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, …	The amount a container can hold
The result when one number is subtracted from another number The difference of 4 and 3 is $4 - 3,$ or 1.	The units volume is measured in cubic feet $(\text{ft}^3),$ cubic meters $(\text{m}^3).$
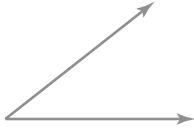
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Vocabulary Flash Cards

expression *Review*	**factor** *Review*
line segment *Review*	**number line** *Review*
ordered pair *Review*	**parallel** *Review*
parallelogram *Review*	**plane** *Review*

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Vocabulary Flash Cards

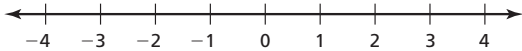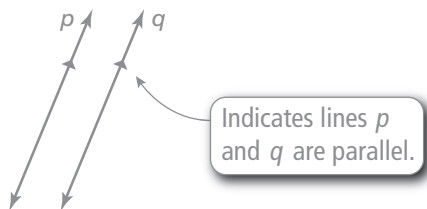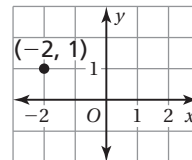|	
When whole numbers other than zero are multiplied together, each number is a factor of the product. $2 \times 3 \times 4 = 24,$ so 2, 3, and 4 are factors of 24.	A mathematical phrase containing numbers, operations, and/or variables *See numerical expression or algebraic expression.*
A line whose points are associated with numbers that increase from left to right $$\xleftarrow{\quad} \underset{-4}{\mid} \ \underset{-3}{\mid} \ \underset{-2}{\mid} \ \underset{-1}{\mid} \ \underset{0}{\mid} \ \underset{1}{\mid} \ \underset{2}{\mid} \ \underset{3}{\mid} \ \underset{4}{\mid} \xrightarrow{\quad}$$	Part of a line that consists of two points, called endpoints, and all the points on the line between the endpoints
Two lines in the same plane that do not intersect *p* *q* Indicates lines *p* and *q* are parallel.	A pair of numbers (x, y) used to locate a point in a coordinate plane; The first number is the *x*-coordinate, and the second number is the *y*-coordinate. $(-2, 1)$ The *x*-coordinate of the point $(-2, 1)$ is $-2,$ and the *y*-coordinate is 1.
A flat surface that extends without end in all directions	A quadrilateral with two pairs of parallel sides

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Vocabulary Flash Cards

prime number *Review*	**product** *Review*
quadrilateral *Review*	**quotient** *Review*
rectangle *Review*	**right angle** *Review*
square *Review*	**square(d)** *Review*

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Vocabulary Flash Cards

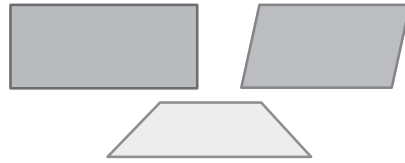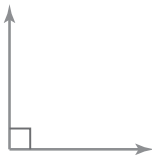|	
The result when two or more numbers are multiplied The product of 4 and 3 is 4×3, or 12.	A whole number greater than 1 with exactly two factors, 1 and itself 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, …
The result of a division The quotient of 10 and 5 is 10 ÷ 5, or 2.	A polygon with four sides
An angle whose measure is $90°$	A parallelogram with four right angles
A number squared is the number raised to an exponent of 2. 5 squared means 5^2, or 25.	A parallelogram with four sides that have the same length and four right angles

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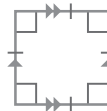
Vocabulary Flash Cards

square units *Review*	**sum** *Review*
three-dimensional figure *Review*	**trapezoid** *Review*
triangle *Review*	**two-dimensional figure** *Review*
whole numbers *Review*	**x-axis** *Review*

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Vocabulary Flash Cards

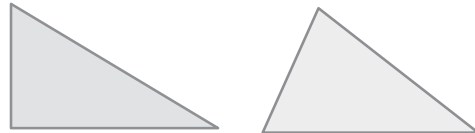|	
The result when two or more numbers are added The sum of 4 and 3 is $4 + 3$, or 7.	The units are measured in square feet (ft^2), square meters (m^2).
A quadrilateral with exactly one pair of parallel sides	A figure that has length, width, and depth
A figure that has only length and width	A polygon with three sides
The horizontal number line in a coordinate plane *See coordinate plane.*	The numbers $0, 1, 2, 3, 4, \ldots$
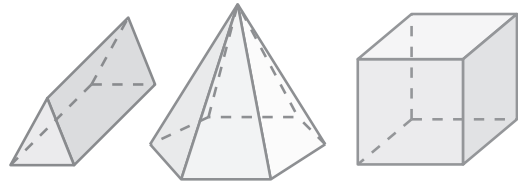
Vocabulary Flash Cards

x-coordinate *Review*	**y-axis** *Review*
y-coordinate *Review*	

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Vocabulary Flash Cards

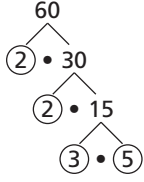|	
The vertical number line in a coordinate plane *See coordinate plane.*	The first coordinate in an ordered pair, which indicates how many units to move to the left or right from the origin In the ordered pair $(3, 5)$, the *x*-coordinate is 3.
	The second coordinate in an ordered pair, which indicates how many units to move up or down from the origin In the ordered pair $(3, 5)$, the *y*-coordinate is 5.

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Vocabulary Flash Cards

base (of a power) *Chapter 1*	common factors *Chapter 1*
common multiples *Chapter 1*	evaluate (a numerical expression) *Chapter 1*
exponent *Chapter 1*	factor pair *Chapter 1*
factor tree *Chapter 1*	greatest common factor (GCF) *Chapter 1*

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Vocabulary Flash Cards

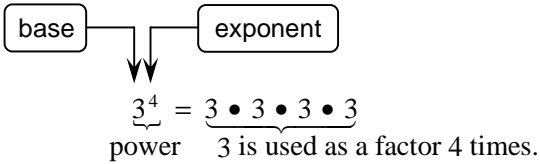|	
Factors that are shared by two or more numbers 2 is a common factor of 8 and 10.	The base of a power is the repeated factor. *See power.*
Use the order of operations to find the value of a numerical expression. *See order of operations.*	Multiples that are shared by two or more numbers Multiples of 4: 4, 8, 12, 16, 20, 24, … Multiples of 6: 6, 12, 18, 24, 30, 36, … The first common multiples of 4 and 6 are 12 and 24.
Two whole numbers other than zero that are multiplied together to get a product Because $2 \bullet 5 = 10$, the pair 2, 5 is a factor pair of 10.	The exponent of a power indicates the number of times the base is used as a factor. *See power.*
The greatest of the common factors of two or more numbers The common factors of 12 and 20 are 1, 2, and 4. So the GCF of 12 and 20 is 4.	A diagram that shows the prime factorization of a number 60 ②• 30 ②• 15 ③•⑤ $60 = 2 \bullet 2 \bullet 3 \bullet 5$, or $2^2 \bullet 3 \bullet 5$

Big Ideas Math Advanced 1

Vocabulary Flash Cards

least common denominator (LCD) *Chapter 1*	**least common multiple (LCM)** *Chapter 1*
numerical expression *Chapter 1*	**order of operations** *Chapter 1*
perfect square *Chapter 1*	**power** *Chapter 1*
prime factorization *Chapter 1*	**Venn diagram** *Chapter 1*

Big Ideas Math Advanced 1

Vocabulary Flash Cards

The least of the common multiples of two or more numbers Multiples of 10: 10, 20, 30, 40, … Multiples of 15: 15, 30, 45, 60, … The least common multiple of 10 and 15 is 30.	The least common multiple of the denominators of two or more fractions The least common denominator of $\dfrac{3}{4}$ and $\dfrac{5}{6}$ is the least common multiple of 4 and 6, or 12.
The order in which to perform operations when evaluating expressions with more than one operation To evaluate $5 + 2 \times 3,$ you perform the multiplication before the addition. $$5 + 2 \times 3 = 5 + 6 = 11$$	An expression that contains only numbers and operations $$12 + 6, 18 + 3 \times 4$$
A product of repeated factors base exponent $$3^4 = 3 \bullet 3 \bullet 3 \bullet 3$$ power 3 is used as a factor 4 times.	The square of a whole number Because $7^2 = 49,$ 49 is a perfect square.
A diagram that uses circles to describe relationships between two or more sets	A composite number written as the product of its prime factors $$60 = 2 \times 2 \times 3 \times 5$$

Big Ideas Math Advanced 1

Vocabulary Flash Cards

Multiplicative Inverse Property *Chapter 2*	**reciprocals** *Chapter 2*

Big Ideas Math Advanced 1

Vocabulary Flash Cards

Two numbers whose product is 1 Because $\dfrac{4}{5} \times \dfrac{5}{4} = 1$, $\dfrac{4}{5}$ and $\dfrac{5}{4}$ are reciprocals.	The product of a nonzero number and its reciprocal is 1. $$5 \bullet \dfrac{1}{5} = 1$$

Big Ideas Math Advanced 1

Vocabulary Flash Cards

Addition Property of Zero *Chapter 3*	**algebraic expression** *Chapter 3*
Associative Properties of Addition and Multiplication *Chapter 3*	**coefficient** *Chapter 3*
Commutative Properties of Addition and Multiplication *Chapter 3*	**constant** *Chapter 3*
Distributive Property *Chapter 3*	**equivalent expressions** *Chapter 3*

Big Ideas Math Advanced 1

Vocabulary Flash Cards

An expression that contains numbers, operations, and one or more symbols $$8 + x, \; 6 \times a - b$$	The sum of any number and 0 is that number. $$5 + 0 = 5$$
The numerical factor of a term that contains a variable In the algebraic expression $6k + 8$, 6 is the coefficient of the term $6k$.	Changing the grouping of addends or factors does not change the sum or product. $$(3 + 4) + 5 = 3 + (4 + 5)$$ $$(3 \bullet 4) \bullet 5 = 3 \bullet (4 \bullet 5)$$
A term without a variable In the expression $2x + 8$, the term 8 is a constant.	Changing the order of addends or factors does not change the sum or product. $$2 + 8 = 8 + 2$$ $$2 \bullet 8 = 8 \bullet 2$$
Expressions with the same value $$7 + 4, \; 4 + 7$$	To multiply a sum or difference by a number, multiply each number in the sum or difference by the number outside the parentheses. Then evaluate. $$3(12 + 9) = 3(12) + 3(9)$$ $$3(12 - 9) = 3(12) - 3(9)$$

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factoring an expression *Chapter 3*	**like terms** *Chapter 3*
Multiplication Properties of Zero and One *Chapter 3*	**terms (of an algebraic expression)** *Chapter 3*
variable *Chapter 3*	

Big Ideas Math Advanced 1

Vocabulary Flash Cards

Terms of an algebraic expression that have the same variables raised to the same exponents 4 and 8, $2x$ and $7x$	Writing a numerical expression or algebraic expression as a product of factors $5x - 15 = 5(x - 3)$
The parts of an algebraic expression The terms of $4x + 7$ are $4x$ and 7.	The product of any number and 0 is 0. The product of any number and 1 is that number. $5 \bullet 0 = 0$ $6 \bullet 1 = 6$
	A symbol that represents one or more numbers x is a variable in $2x + 1$.

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Vocabulary Flash Cards
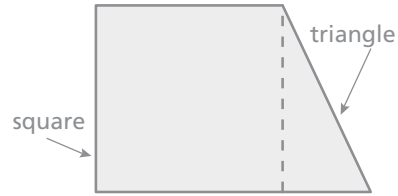
composite figure *Chapter 4*	**polygon** *Chapter 4*

Vocabulary Flash Cards

A closed figure in a plane that is made up of three or more line segments that intersect only at their endpoints
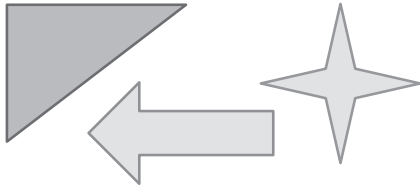
A figure made up of triangles, squares, rectangles, and other two-dimensional figures

triangle

square

Big Ideas Math Advanced 1

Vocabulary Flash Cards

conversion factor *Chapter 5*	**equivalent rates** *Chapter 5*
equivalent ratios *Chapter 5*	**metric system** *Chapter 5*
percent *Chapter 5*	**rate** *Chapter 5*
ratio *Chapter 5*	**ratio table** *Chapter 5*

Big Ideas Math Advanced 1

Vocabulary Flash Cards

Rates that have the same unit rate 6 miles in 3 hours and 4 miles in 2 hours	A rate that equals 1; A conversion factor is used to convert units. $$1 \text{ mile } = 5280 \text{ feet}$$
Decimal system of measurement, based on powers of 10, that contains units for length, capacity, and mass centimeter, meter, liter, kilogram	Two ratios that describe the same relationship $$2 : 3 \text{ and } 4 : 6$$
A ratio of two quantities using different units You read 3 books every 2 weeks.	A part-to-whole ratio where the whole is 100 $$37\% = 37 \text{ out of } 100 = \frac{37}{100}$$
A table used to find and organize equivalent ratios 	A comparison of two quantities; The ratio of a to b can be written as $a : b$. Ratios can be part-to-part, part-to-whole, or whole-to-part comparisons. $$4 : 1$$

Big Ideas Math Advanced 1

Vocabulary Flash Cards

unit analysis *Chapter 5*	**unit rate** *Chapter 5*
U.S. customary system *Chapter 5*	

Big Ideas Math Advanced 1

Vocabulary Flash Cards

A rate that compares a quantity to one unit of another quantity

The speed limit is 65 miles per hour.

A process used to decide which conversion factor will produce the appropriate units

$$36 \; \cancel{qt} \cdot \frac{1 \; gal}{4 \; \cancel{qt}} = 9 \; gal$$

System of measurement that contains units for length, capacity, and weight

inches, feet, quarts, gallons, ounces, pounds

Big Ideas Math Advanced 1

Vocabulary Flash Cards

absolute value *Chapter 6*	**coordinate plane** *Chapter 6*
integers *Chapter 6*	**negative numbers** *Chapter 6*
opposites *Chapter 6*	**origin** *Chapter 6*
positive numbers *Chapter 6*	**quadrants** *Chapter 6*

Big Ideas Math Advanced 1

Vocabulary Flash Cards

A coordinate plane is formed by the intersection of a horizontal number line and a vertical number line. The origin is at (0, 0).	The distance between a number and 0 on a number line; The absolute value of a number a is written as $\lvert a \rvert$. $$\lvert -5 \rvert = 5$$ $$\lvert 5 \rvert = 5$$
Numbers that are less than 0 $-10, -500, -10{,}000$	The set of whole numbers and their opposites $\ldots, -3, -2, -1, 0, 1, 2, 3, \ldots$
The point, represented by the ordered pair $(0, 0)$, where the horizontal and vertical number lines intersect in a coordinate plane *See coordinate plane.*	Two numbers that are the same distance from 0 on a number line, but on opposite sides of 0 -3 and 3 are opposites.
The four regions created by the intersection of the horizontal and vertical number lines in a coordinate plane *See coordinate plane.*	Numbers that are greater than 0 $0.5, 2, 100$
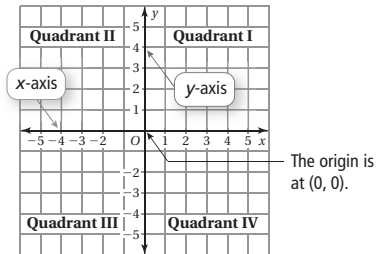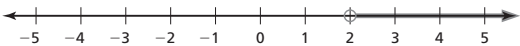
Vocabulary Flash Cards

Addition Property of Equality *Chapter 7*	**Addition Property of Inequality** *Chapter 7*
dependent variable *Chapter 7*	**Division Property of Equality** *Chapter 7*
Division Property of Inequality *Chapter 7*	**equation** *Chapter 7*
equation in two variables *Chapter 7*	**graph of an inequality** *Chapter 7*

Vocabulary Flash Cards

When you add the same number to each side of an inequality, the inequality remains true.

$$x - 4 > 5$$
$$\underline{+\ 4 \qquad +\ 4}$$
$$x > 9$$

When you add the same number to each side of an equation, the two sides remain equal.

$$x - 4 = 5$$
$$\underline{+\ 4 \qquad +\ 4}$$
$$x = 9$$

When you divide each side of an equation by the same nonzero number, the two sides remain equal.

$$4x = 32$$
$$\frac{4x}{4} = \frac{32}{4}$$
$$x = 8$$

The variable whose value depends on the independent variable in an equation in two variables

In the equation $y = 5x - 8$, y is the dependent variable.

A mathematical sentence that uses an equal sign, =, to show that two expressions are equal

$$4x = 16,\ a + 7 = 21$$

When you divide each side of an inequality by the same positive number, the inequality remains true.

$$4x < 8$$
$$\frac{4x}{4} < \frac{8}{4}$$
$$x < 2$$

A graph that shows all the solutions of an inequality on a number line

$$x > 2$$

An equation that represents two quantities that change in relationship to one another

$$y = 2x,\ y = 4x - 3$$

Big Ideas Math Advanced 1

Vocabulary Flash Cards

independent variable *Chapter 7*	**inequality** *Chapter 7*
inverse operations *Chapter 7*	**Multiplication Property of Equality** *Chapter 7*
Multiplication Property of Inequality *Chapter 7*	**Multiplicative Inverse Property** *Chapter 7*
solution (of an equation) *Chapter 7*	**solution of an equation in two variables** *Chapter 7*

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Vocabulary Flash Cards

A mathematical sentence that compares expressions; It contains the symbols $<$, $>$, $\leq$, or $\geq$. $$x - 4 < 14, \quad x + 5 \geq 67$$	The variable representing the quantity that can change freely in an equation in two variables In the equation $y = 5x - 8$, x is the independent variable.
When you multiply each side of an equation by the same nonzero number, the two sides remain equal. $$\frac{x}{4} = 2$$ $$\frac{x}{4} \bullet 4 = 2 \bullet 4$$ $$x = 8$$	Operations that "undo" each other, such as addition and subtraction or multiplication and division
The product of a nonzero number and its reciprocal is 1. $$5 \bullet \frac{1}{5} = 1$$	When you multiply each side of an inequality by the same positive number, the inequality remains true. $$\frac{x}{4} < 2$$ $$\frac{x}{4} \bullet 4 < 2 \bullet 4$$ $$x < 8$$
An ordered pair that makes an equation in two variables true $(3, 4)$ is a solution of the equation $y = x + 1$.	A value that makes an equation true 6 is the solution of the equation $x - 4 = 2$.

Big Ideas Math Advanced 1

Vocabulary Flash Cards

solution of an inequality *Chapter 7*	**solution set** *Chapter 7*
Subtraction Property of Equality *Chapter 7*	**Subtraction Property of Inequality** *Chapter 7*

Vocabulary Flash Cards

The set of all solutions of an inequality	A value that makes an inequality true A solution of the inequality $x + 3 > 9$ is $x = 12$.
When you subtract the same number from each side of an inequality, the inequality remains true. $\begin{aligned} x + 4 &> 5 \\ -4 \quad &-4 \\ x &> 1 \end{aligned}$	When you subtract the same number from each side of an equation, the two sides remain equal. $\begin{aligned} x + 4 &= 5 \\ -4 \quad &-4 \\ x &= 1 \end{aligned}$

Big Ideas Math Advanced 1

Vocabulary Flash Cards

edge *Chapter 8*	**face** *Chapter 8*
net *Chapter 8*	**polyhedron** *Chapter 8*
prism *Chapter 8*	**pyramid** *Chapter 8*
solid *Chapter 8*	**surface area** *Chapter 8*

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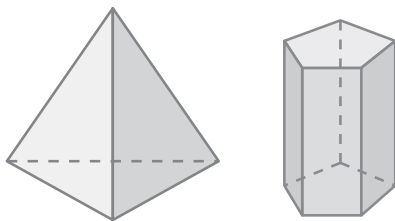
Vocabulary Flash Cards

A flat surface of a polyhedron
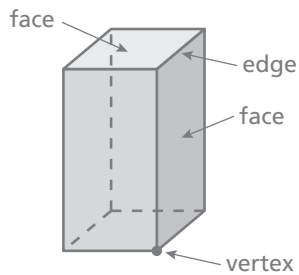
A line segment where two faces intersect

See face.

A solid whose faces are all polygons

A two-dimensional representation of a solid
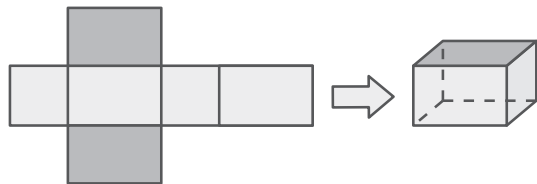
A polyhedron that has one base; The lateral faces are triangles.
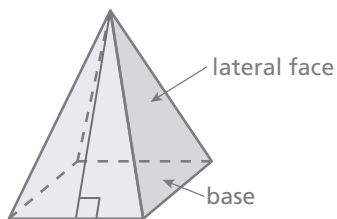
A polyhedron that has two parallel, identical bases; The lateral faces are parallelograms.
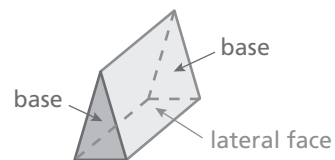
The sum of the areas of all the faces of a solid

$$S = 15 + 15 + 18 + 18 + 30 + 30$$
$$= 126 \text{ in.}^2$$

6 in.
5 in.
3 in.
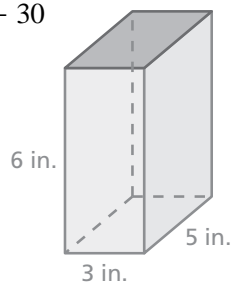
A three-dimensional figure that encloses a space
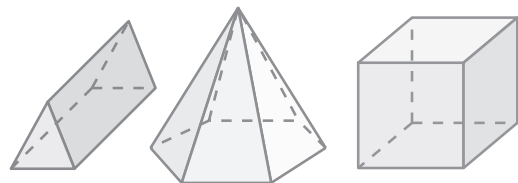
Vocabulary Flash Cards

vertex (of a solid) *Chapter 8*	**volume** *Chapter 8*

Vocabulary Flash Cards

A measure of the amount of space that a three-dimensional figure occupies; Volume is measured in cubic units such as cubic feet $\left(ft^3\right)$ or cubic meters $\left(m^3\right)$.

12 ft
3 ft
4 ft

$$V = \ell wh = 12(3)(4) = 144 \ ft^3$$

A point where three or more edges intersect

See face.

Vocabulary Flash Cards

first quartile $\left(Q_1\right)$ *Chapter 9*	**interquartile range** *Chapter 9*
mean *Chapter 9*	**mean absolute deviation** *Chapter 9*
measure of center *Chapter 9*	**measure of variation** *Chapter 9*
median *Chapter 9*	**mode** *Chapter 9*

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Vocabulary Flash Cards

The difference between the third quartile and the first quartile of a data set; represents the range of the middle half of the data The interquartile range of the data set 3, 4, 18, 16, 21, 26 is $21 - 4 = 17$.	The median of the lower half of a data set *See quartiles.*
An average of how much data values differ from the mean The mean of the data set 5, 7, 12, 16 is 10. The sum of the distances between each data value and the mean is 16. So, the mean absolute deviation is $\frac{16}{4} = 4$.	The sum of the data divided by the number of data values The mean of the values 7, 4, 8, and 9 is $$\frac{7 + 4 + 8 + 9}{4} = \frac{28}{4} = 7.$$
A measure that describes the distribution of a data set The range, interquartile range, and mean absolute deviation are all measures of variation.	A measure that describes the typical value of a data set The mean, median, and mode are all measures of center.
The data value or values that occur most often; Data can have one mode, more than one mode, or no mode. The modes of the data set 3, 4, 4, 7, 7, 9, 12 are 4 and 7 because they occur most often.	For a data set with an odd number of ordered values, the median is the middle value. For a data set with an even number of ordered values, the median is the mean of the two middle values. The median of the data set 24, 25, 29, 33, 38 is 29 because 29 is the middle value.

outlier *Chapter 9*	**quartiles** *Chapter 9*
range (of a data set) *Chapter 9*	**statistical question** *Chapter 9*
statistics *Chapter 9*	**third quartile** (Q_3) *Chapter 9*

Big Ideas Math Advanced 1

Vocabulary Flash Cards

The quartiles of a data set divide the data into four equal parts. $$\text{median (second quartile)} = 12$$ lower half upper half $\overbrace{3 \quad 4 \quad 8}$ $\downarrow$ $\overbrace{16 \quad 21 \quad 26}$ $\uparrow$ $\uparrow$ first quartile, Q_1 third quartile, Q_3	A data value that is much greater or much less than the other values In the data set 23, 42, 33, 117, 36, and 40, the outlier is 117.
A question for which you do not expect to get a single answer "What is the daily high temperature in August?"	The difference between the greatest value and the least value of a data set The range of the data set 12, 16, 18, 22, 27, 35 is $35 - 12 = 23$.
The median of the upper half of a data set *See quartiles.*	The science of collecting, organizing, analyzing, and interpreting data

Vocabulary Flash Cards

box-and-whisker plot *Chapter 10*	**five-number summary** *Chapter 10*
frequency *Chapter 10*	**frequency table** *Chapter 10*
histogram *Chapter 10*	**leaf** *Chapter 10*
skewed left *Chapter 10*	**skewed right** *Chapter 10*

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Vocabulary Flash Cards

The five numbers that make up a box-and-whisker plot least value, first quartile, median, third quartile, greatest value	A type of graph that represents a data set along a number line by using the least value, the greatest value, and the quartiles of the data
A table used to group data values into intervals | Pairs of Shoes	Frequency | |---|---| | 1–5 | 11 | | 6–10 | 4 | | 11–15 | 0 | | 16–20 | 3 | | 21–25 | 6 |	The number of data values in an interval *See frequency table or histogram.*
Digit or digits on the right of a stem-and-leaf plot *See stem-and-leaf plot.*	A bar graph that shows the frequency of data values in intervals of the same size; The height of a bar represents the frequency of the values in the interval. There are no spaces between bars.
The distribution of a data set is skewed right when the "tail" of the graph extends to the right and most of the data are on the left.	The distribution of a data set is skewed left when the "tail" of the graph extends to the left and most of the data are on the right.

Big Ideas Math Advanced 1

Vocabulary Flash Cards

stem *Chapter 10*	**stem-and-leaf plot** *Chapter 10*
symmetric (distribution) *Chapter 10*	

Big Ideas Math Advanced 1

Vocabulary Flash Cards

A type of data display that uses the digits of data values to organize a data set; Each data value is broken into a stem (digit or digits on the left) and a leaf (digit or digits on the right). **Test Scores** Stem | Leaf 6 | 6 7 | 2 7 8 | 1 1 3 4 4 6 8 8 9 | 0 0 0 2 7 8 10 | 0 **Key: 9 | 4 = 94 points**	Digit or digits on the left of the stem-and-leaf plot *See stem-and-leaf plot.*
	The distribution of a data set is symmetric when the left side of the graph is a mirror image of the right side of the graph.

Big Ideas Math Advanced 1

Vocabulary Flash Cards

absolute value *Chapter 11*	**additive inverse** *Chapter 11*
Additive Inverse Property *Chapter 11*	**integers** *Chapter 11*
opposites *Chapter 11*	

Vocabulary Flash Cards

The opposite of a number The additive inverse of 8 is -8.	The distance between a number and 0 on a number line; The absolute value of a number a is written as $\lvert a \rvert$. $$\lvert -5 \rvert = 5$$ $$\lvert 5 \rvert = 5$$
The set of whole numbers and their opposites $\ldots -3, -2, -1, 0, 1, 2, 3, \ldots$	The sum of an integer and its additive inverse is 0. $$8 + (-8) = 0$$
	Two numbers that are the same distance from 0, but on opposite sides of 0 -3 and 3 are opposites.

Vocabulary Flash Cards

rational number *Chapter 12*	**repeating decimal** *Chapter 12*
terminating decimal *Chapter 12*	

Vocabulary Flash Cards

A decimal that has a pattern that repeats

$$0.555... = 0.\overline{5}$$
$$1.727272... = 1.\overline{72}$$

A number that can be written as $\dfrac{a}{b}$ where a and b are integers and $b \neq 0$

$$3 = \frac{3}{1}, \qquad -\frac{2}{5} = \frac{-2}{5}$$
$$0.25 = \frac{1}{4}, \qquad 1\frac{1}{3} = \frac{4}{3}$$

A decimal that ends

$$1.5,\ 2.58,\ -5.605$$

Big Ideas Math Advanced 1

Vocabulary Flash Cards

Addition Property of Equality *Chapter 13*	**Division Property of Equality** *Chapter 13*
equivalent equations *Chapter 13*	**factoring an expression** *Chapter 13*
like terms *Chapter 13*	**linear expression** *Chapter 13*
Multiplication Property of Equality *Chapter 13*	**simplest form (of an algebraic expression)** *Chapter 13*

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Vocabulary Flash Cards

Dividing each side of an equation by the same number produces an equivalent equation. $$-3y = 18$$ $$\frac{-3y}{-3} = \frac{18}{-3}$$ $$y = -6$$	Adding the same number to each side of an equation produces an equivalent equation. $$x - 5 = -1$$ $$\underline{+\ 5 \qquad +\ 5}$$ $$x = 4$$
Writing an expression as a product of factors $$5x - 15 = 5(x - 3)$$	Equations that have the same solutions $$2x - 8 = 0 \text{ and } 2x = 8$$
An algebraic expression in which the exponent of the variable is 1 $$-4x,\ 3x + 5,\ 5 - \frac{1}{6}x$$	Terms of an algebraic expression that have the same variables raised to the same exponents $$4 \text{ and } 8,\ 2x \text{ and } 7x$$
An algebraic expression is in simplest form when it has no like terms and no parentheses. $$6a + 9a^2,\ 3t + 5$$	Multiplying each side of an equation by the same number produces an equivalent equation. $$\frac{x}{3} = -6$$ $$3 \bullet \frac{x}{3} = 3 \bullet (-6)$$ $$x = -18$$

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Vocabulary Flash Cards

Subtraction Property of Equality

Chapter 13

Vocabulary Flash Cards
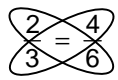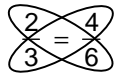
Subtracting the same number from each side of an equation produces an equivalent equation.

$$w + 5 = 25$$
$$\underline{-5 \qquad -5}$$
$$w = 20$$

Big Ideas Math Advanced 1

Vocabulary Flash Cards

complex fraction *Chapter 14*	**constant of proportionality** *Chapter 14*
cross products *Chapter 14*	**Cross Products Property** *Chapter 14*
direct variation *Chapter 14*	**proportion** *Chapter 14*
proportional *Chapter 14*	**rate** *Chapter 14*

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Vocabulary Flash Cards

|	
The number k in the direct variation equation $y = kx$ The constant of proportionality in the equation $y = 2x$ is 2.	A fraction that has at least one fraction in the numerator, denominator, or both $$\frac{\frac{1}{4}}{\frac{1}{2}}$$
The cross products of a proportion are equal. $$\frac{2}{3} \underset{=}{\times} \frac{4}{6}$$ $2 \bullet 6 = 3 \bullet 4$	In the proportion $\dfrac{a}{b} = \dfrac{c}{d}$, the products $a \bullet d$ and $b \bullet c$ are called cross products. $$\frac{2}{3} \underset{=}{\times} \frac{4}{6}$$ $2 \bullet 6$ and $3 \bullet 4$
An equation stating that two ratios are equivalent $$\frac{3}{4} = \frac{12}{16}$$	Two quantities x and y show direct variation when $y = kx$, where k is a number and $k \neq 0$. The graph of $y = kx$ is a line with a slope of k that passes through the origin.
A ratio of two quantities with different units You read 3 books every 2 weeks.	Two quantities that form a proportion are proportional. Because $\dfrac{3}{4}$ and $\dfrac{12}{16}$ form a proportion, $\dfrac{3}{4}$ and $\dfrac{12}{16}$ are proportional.

Big Ideas Math Advanced 1

Vocabulary Flash Cards

ratio *Chapter 14*	**slope** *Chapter 14*
unit rate *Chapter 14*	

Vocabulary Flash Cards

A ratio of the change in *y* (vertical change) to the change in *x* (horizontal change) between any two points on a line; It is a measure of the steepness of a line.

$$\text{slope} \; = \; \frac{\text{change in } y}{\text{change in } x}$$
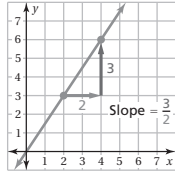
A comparison of two quantities using division; The ratio of *a* to *b* $\left(\text{where } b \neq 0\right)$ can be written as *a* to *b*, *a* : *b*, or $\dfrac{a}{b}$.

4 to 1, 4 : 1, or $\dfrac{4}{1}$

A rate with a denominator of 1

The speed limit is 65 miles per hour.

Big Ideas Math Advanced 1

Vocabulary Flash Cards

discount *Chapter 15*	**interest** *Chapter 15*
markup *Chapter 15*	**percent of change** *Chapter 15*
percent of decrease *Chapter 15*	**percent error** *Chapter 15*
percent of increase *Chapter 15*	**principal** *Chapter 15*

Big Ideas Math Advanced 1

Vocabulary Flash Cards

Money paid or earned for the use of money *See simple interest.*	A decrease in the original price of an item The original price of a pair of shoes is $95. The sale price is $65. The discount is $30.
The percent that a quantity changes from the original amount percent of change $= \dfrac{\text{amount of change}}{\text{original amount}}$ The percent of change from 20 to 25 is: $$\dfrac{25 - 20}{20} = \dfrac{5}{20} = 25\%$$	The increase from what a store pays to the selling price A store buys a hat for $12 and sells it for $20. The markup is $8.
The percent that an estimated quantity differs from the actual amount percent error $= \dfrac{\text{amount of error}}{\text{actual amount}}$ Estimated length: 16 feet Actual length: 21 Percent error: $\dfrac{21 - 16}{21}$, or 23.8%	The percent of change when the original amount decreases percent of decrease $$= \dfrac{\text{original amount} - \text{new amount}}{\text{original amount}}$$ The price of a shirt decreases from $20 to $10. The percent of decrease is $\dfrac{20 - 10}{20}$, or 50%.
An amount of money borrowed or deposited You deposit $200 in an account that earns 4% simple interest per year. The principal is $200.	The percent of change when the original amount increases percent of increase $$= \dfrac{\text{new amount} - \text{original amount}}{\text{original amount}}$$ The price of a shirt increases from $20 to $30. The percent of increase is $\dfrac{30 - 20}{20}$, or 50%.

Big Ideas Math Advanced 1

Vocabulary Flash Cards

simple interest

Chapter 15

Big Ideas Math Advanced 1

Vocabulary Flash Cards

Money paid or earned only on the principal

Simple Interest

Annual interest rate (in decimal form)

$$I = Prt$$

Principal

Time (in years)

You put $200 into an account. The account earns 5% simple interest per year. The interest earned after 3 years is $200 \times 0.05 \times 3,$ or $30. The account balance is $200 + $30 = $230 after 3 years.

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