Vocabulary Flash Cards addend angle Review Review bar graph area Review Review composite number capacity Review Review cubic units difference Review Review

Vocabulary Flash Carus	
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 Average Class Sizes Average Class Sizes Grade	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 (ft³), cubic meters (m³).

Vocabulary Flash Cards expression factor Review Review line line segment Review Review ordered pair number line Review Review parallelogram parallel Review Review

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.
Part of a line that consists of two points, called endpoints, and all the points on the line between the endpoints	A set of points that extends without end in two opposite directions
A pair of numbers (x, y) used to locate a point in a coordinate plane; The first number is the <i>x</i> -coordinate, and the second number is the <i>y</i> -coordinate. The <i>x</i> -coordinate of the point $(-2, 1)$ is -2 , and the <i>y</i> -coordinate is 1.	A line whose points are associated with numbers that increase from left to right -4 -3 -2 -1 0 1 2 3 4
A quadrilateral with two pairs of parallel sides	Two lines in the same plane that do not intersect Indicates lines p and q are parallel.

Vocabulary Flash Cards plane prime number Review Review product quadrilateral Review Reviewquotient rectangle Review Review right angle square ReviewReview

Vocabulary Flash Cards A whole number greater than 1 with exactly two A flat surface that extends without end in all factors, 1 and itself directions 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, ... A polygon with four sides The result when two or more numbers are multiplied The product of 4 and 3 is 4×3 , or 12. A parallelogram with four right angles The result of a division The quotient of 10 and 5 is $10 \div 5$, or 2. An angle whose measure is 90° A parallelogram with four sides that have the same length and four right angles





Vocabulary Flash Cards square(d) square units Review Review three-dimensional figure sum Review Review trapezoid triangle Review Review two-dimensional figure whole numbers Review Review

The units are measured in square feet (ft²), square meters (m²).	A number squared is the number raised to an exponent of 2. 5 squared means 5 ² , or 25.
A figure that has length, width, and depth	The result when two or more numbers are added The sum of 4 and 3 is 4 + 3, or 7.
A polygon with three sides	A quadrilateral with exactly one pair of parallel sides
The numbers 0, 1, 2, 3, 4,	A figure that has only length and width

X-axis X-coordinate

Review P-coordinate

y-axis y-coordinate

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 <i>x</i> -coordinate is 3.	The horizontal number line in a coordinate plane See coordinate plane.
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 <i>y</i> -coordinate is 5.	The vertical number line in a coordinate plane See coordinate plane.

greatest common factor (GCF) Chapter 1 Chapter 1

•	
Factors that are shared by two or more numbers	The base of a power is the repeated factor.
2 is a common factor of 8 and 10.	See power.
Use the order of operations to find the value of a	Multiples that are shared by two or more numbers
numerical expression.	
	Multiples of 4: 4, 8, 12, 16, 20, 24,
See order of operations.	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	The exponent of a power indicates the number of times the base is used as a factor.
Because $2 \bullet 5 = 10$, the pair 2, 5 is a factor pair of 10.	See power.
The greatest of the common feature of two or	A diagram that shows the prime fectorization of a
The greatest of the common factors of two or more numbers	A diagram that shows the prime factorization of a number 60
The common factors of 12 and 20 are 1, 2, and 4. So the GCF of 12 and 20 is 4.	② • 30 ② • 15
	3 • 5
	$60 = 2 \bullet 2 \bullet 3 \bullet 5, \text{ or } 2^2 \bullet 3 \bullet 5$

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

The least of the common mul	tiples 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 $\frac{3}{4}$ and $\frac{5}{6}$ 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

$$12 + 6, 18 + 3 \times 4$$

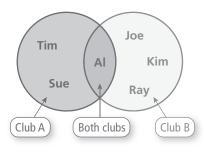
A product of repeated factors

base exponent
$$3\frac{4}{3} = 3 \cdot 3 \cdot 3 \cdot 3$$
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

$$60 = 2 \times 2 \times 3 \times 5$$

Multiplicative Inverse Property

Chapter 2

Chapter 2

Chapter 2

Two numbers whose product is 1

Because
$$\frac{4}{5} \times \frac{5}{4} = 1$$
, $\frac{4}{5}$ and $\frac{5}{4}$ are reciprocals.

The product of a nonzero number and its reciprocal is 1.

$$5 \bullet \frac{1}{5} = 1$$

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

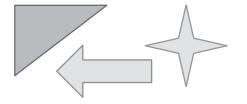
An expression that contains numbers, operations, and one or more symbols $8 + x, 6 \times a - b$	The sum of any number and 0 is that number. $5 + 0 = 5$
The numerical factor of a term that contains a variable In the algebraic expression $6k + 8$, 6 is the coefficient of the term $6k$.	Changing the grouping of addends or factors does not change the sum or product. $(3 + 4) + 5 = 3 + (4 + 5)$ $(3 \cdot 4) \cdot 5 = 3 \cdot (4 \cdot 5)$
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. $3(12 + 9) = 3(12) + 3(9)$ $3(12 - 9) = 3(12) - 3(9)$

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

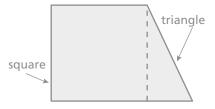
Terms of an algebraic expression that have the same variables raised to the same exponents 4 and 8, $2x$ and $7x$	Writing a numerical expression or algebraic expression as a product of factors $5x - 15 = 5(x - 3)$
The parts of an algebraic expression The terms of $4x + 7$ are $4x$ and 7 .	The product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

composite figure	polygon
Chapter 4	Chapter 4

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



Vocabulary Flash Cards conversion factor equivalent rates Chapter 5 Chapter 5 equivalent ratios metric system Chapter 5 Chapter 5 percent rate Chapter 5 Chapter 5 ratio ratio table

Vocabulary Flash Carus	
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 mile = 5280 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 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 Pens $\begin{vmatrix} 1 & +1 \\ 1 & 2 & 3 \end{vmatrix}$ Pencils $\begin{vmatrix} 3 & 6 & 9 \\ 1 & 4 & 4 \end{vmatrix}$	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

Vocabulary Flash Cards	
unit analysis	unit rate
Chapter 5	Chapter 5
U.S. customary system Chapter 5	

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

$$36 \text{ gd} \bullet \frac{1 \text{ gal}}{4 \text{ gd}} = 9 \text{ gal}$$

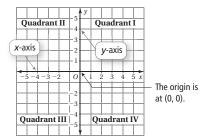
System of measurement that contains units for length, capacity, and weight

inches, feet, quarts, gallons, ounces, pounds

Vocabulary Flash Cards absolute value coordinate plane Chapter 6 Chapter 6 integers negative numbers Chapter 6 Chapter 6 opposites origin Chapter 6 Chapter 6 positive numbers quadrants

Chapter 6 Chapter 6

A coordinate plane is formed by the intersection of a horizontal number line and a vertical number line.



The distance between a number and 0 on a number line; The absolute value of a number a is written as |a|.

$$\left|-5\right| = 5$$

$$|5| = 5$$

Numbers that are less than 0

$$-10, -500, -10,000$$

The set of whole numbers and their opposites

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

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

$$x - 4 > 5$$

$$+ 4 + 4$$

$$x > 9$$

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

$$x - 4 = 5$$

$$+ 4 + 4$$

$$x = 9$$

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

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

two variables

Chapter 7

Chapter 7

A mathematical sentence that compares expressions; It contains the symbols $<$, $>$, \le , or \ge . $x - 4 < 14$, $x + 5 \ge 67$	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. $\frac{x}{4} = 2$ $\frac{x}{4} \cdot 4 = 2 \cdot 4$ $x = 8$	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. $\frac{x}{4} < 2$ $\frac{x}{4} \cdot 4 < 2 \cdot 4$ $x < 8$
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 $x - 4 = 2$.

Subtraction Property of Equality

Solution Set

Subtraction Property of Equality

Subtraction Property of Inequality

Chapter 7

Chapter 7

The set	of all	solutions	of an	inequality
I IIC DCt	OI WII	DOIGHIOID	OI WII	mequality

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.

$$x + 4 > 5$$

$$-4 \qquad -4$$

$$x > 1$$

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

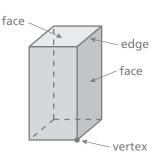
$$x + 4 = 5$$

$$-4 \qquad -4$$

$$x = 1$$

Vocabulary Flash Cards edge face Chapter 8 Chapter 8 polyhedron net Chapter 8 Chapter 8 prism pyramid Chapter 8 Chapter 8 solid surface area Chapter 8 Chapter 8

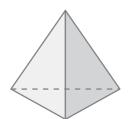
A flat surface of a polyhedron

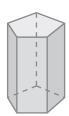


A line segment where two faces intersect

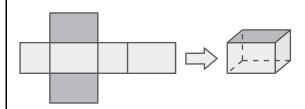
See face.

A solid whose faces are all polygons

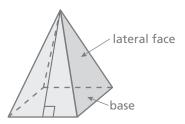




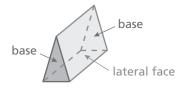
A two-dimensional representation of a solid



A polyhedron that has one base; The lateral faces are triangles.

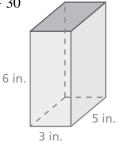


A polyhedron that has two parallel, identical bases; The lateral faces are parallelograms.

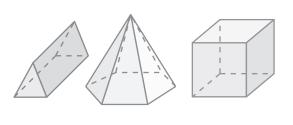


The sum of the areas of all the faces of a solid

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



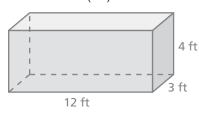
A three-dimensional figure that encloses a space



Vocabulary Flash Cards vertex (of a solid)	volume
Chapter 8	Chapter 8

A measure of the amount of space that a threedimensional figure occupies; Volume is measured in cubic units such as cubic feet (ft³) or cubic

meters (m^3) .



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

A point where three or more edges intersect

See face.

Chapter 9

Chapter 9

,	1
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.

Vocabulary Flash Cards quartiles outlier Chapter 9 Chapter 9 statistical question range (of a data set) Chapter 9 Chapter 9

statistics third quartile (Q_3)

Chapter 9 Chapter 9

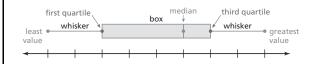
The quartiles of a data set divide the data into four equal parts. median (second quartile) = 12 lower half upper half $3 4 8$ $16 21 26$ first quartile, Q_1 third quartile, Q_3	A data value that is much greater or much less than the other values In the data set 23, 42, 33, 117, 36, and 40, the outlier 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

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

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

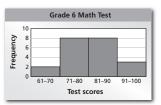
The number of data values in an interval

See frequency table or histogram.

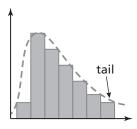
Digit or digits on the right of a stem-and-leaf plot

See stem-and-leaf plot.

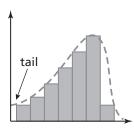
A bar graph that shows the frequency of data values in intervals of the same size; The height of a bar represents the frequency of the values in the interval. There are no spaces between bars.



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.



Vocabulary Flash Cards	
stem	stem-and-leaf plot
Chapter 10	Chapter 10
symmetric (distribution) Chapter 10	

A type of data	Test S	Scores
display that uses	Stem	Leaf
the digits of data	6	6
values to organize	7	2 7
a data set; Each	8	1 1 3 4 4 6 8 8 0 0 0 2 7 8
data value is broken	9	0 0 0 2 7 8
into a stem (digit or	10	0
digits on the left)		Key: 9 4 = 94 points
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 0 0 0 2 7 8		
9	0 0 0 2 7 8		
10	0		

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.

