

Grade 5
Math
Vocabulary
Words

**Please note that there
are no vocabulary words
for:
Topics 5, 6, 7, 13,**

digits

digits

The symbols used to show numbers:
0, 1, 2, 3, 4, 5, 6, 7, 8, 9

value

value

The number a digit represents, which is determined by the position of the digit

standard form

standard form

A common way of writing a number with commas separating groups of three digits starting from the right
Example: 3,458

Fold here



expanded form

expanded form

A way to write a number that shows the place value of each digit.

Example:

$$3,000 + 500 + 60 + 2$$

word form

Fold here

word form

A way to write a number using words.

example:

The number **569** in word form is:

five hundred sixty nine

equivalent decimals

equivalent decimals

Decimals that name the same amount

Example: $0.7 = 0.70$



Commutative Property of Addition

Commutative Property of Addition

The order of addends can be changed and the sum remains the same.

Example: $3 + 7 = 7 + 3$

Associative Property of Addition

Fold here

Associative Property of Addition

Addends can be regrouped and the sum remains the same.

Example: $1 + (3 + 5) = (1 + 3) + 5$

compatible numbers

compatible numbers

Numbers that are easy to compute mentally

Example:

21 and 3 are compatible numbers in division because $21 \div 3 = 7$

compensation

compensation

Adjusting **one** number of an operation to make computations *easier* and *balancing* the adjustment by *changing* the other number

Looks at steps 1, 2, 3, & 4.

1

135
+ 48

It's easier to add 50.

2

135 + 48 135 + 50 = 185

I added 2 too many, so I will subtract 2.

Fold here

3

135 + 48 135 + 50 = 185

4

135 + 48 = 183

rounding

rounding (estimating)

A process that determines which multiple of 10, 100, 1,000, etc., or a number is closest to.... **Example: rounding 27 to the closest tenth: is 30**



Commutative Property of Multiplication

Commutative Property of Multiplication

The order of factors can be changed and the product remains the same.

Example: $3 \times 5 = 5 \times 3$

Associative Property of Multiplication

Associative Property of Multiplication

Factors can be regrouped and the product remains the same. *Example:*

$$2 \times (4 \times 10) = (2 \times 4) \times 10$$

Identity Property of Multiplication

Identity Property of Multiplication

The product of any number and 1 is that number.

Examples:

$$567 \times 1 = 567$$

$$56,986 \times 1 = 56,986$$

Fold here



Zero Property of Multiplication

Zero Property of Multiplication

The product of any number and 0 is 0.

Examples:

$$567 \times 0 = 0$$

$$56,986 \times 0 = 0$$



factors

Fold here

factors

Numbers that are multiplied to get a product (answer for multiplication)

$$3 \times 2 = 6$$

↑ ↑ ↓

These are the **factors** of 6. This is the **product**.

product

product

The number that is the result (answer) of multiplying two or more factors

$$3 \times 2 = 6$$

↑ ↑ ↓

These are the **factors** of 6. This is the **product**.

multiple

multiple

The product of a given whole number and another whole number

Multiples of 4

| | | | |
|--------------|------|--------------|--|
| 4×9 | | 4×4 | |
| answer boxes | | | |
| 16 | 36 | | |



underestimate
(under-estimate)

Fold here

underestimate

An estimated sum or difference that is less than the actual answer

overestimate

over-estimate

overestimate

An estimated sum or difference that is greater than the actual answer

exponential notation

exponential notation

A way to write a number using a base and an exponent

$$2 \times 2 = 2^2 = 4$$

$$2 \times 2 \times 2 = 2^3 = 8$$

$$2 \times 2 \times 2 \times 2 = 2^4 = 16$$

$$2 \times 2 \times 2 \times 2 \times 2 = 2^5 = 32$$

$$2 \times 2 \times 2 \times 2 \times 2 \times 2 = 2^6 = 64$$

$$2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 2^7 = 128$$

expanded form (exponents)

Fold here

expanded form (exponents)

A way to write a number involving exponents that show the base as a factor

$$3^5 \div 9^2 =$$

$$(3 \times 3 \times 3 \times 3 \times 3) \div (9 \times 9)$$

$$= 243 \div 81$$

$$= 3$$

standard form

standard form

A common way of writing a number with commas separating groups of three digits starting from the right

Example: 3,458



squared

squared

A name for a number to
the second power

$$3 \times 3 = 3^2$$

cubed

cubed

A name for a number to
the third power

$$2^3 = 2 \times 2 \times 2 = 8$$

**Distributive
Property**

**Distributive
Property**

Multiplying a sum (or difference)
by a number is the same as...

multiplying each number in the
sum (or difference) by that
number and...

adding the products.

Example: $3 \times (10 + 4) =$
 $(3 \times 10) + (3 \times 4)$

partial products

partial products

Products found by breaking one of two factors into ones, tens, hundreds, and so on, and then multiplying each of these by the other factor

$$\begin{array}{r} 400 \times 3 = 1,200 \\ 30 \times 3 = 90 \\ + 2 \times 3 = 6 \\ \hline 432 \times 3 = 1,296 \end{array}$$

base (in arithmetic)

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base (in arithmetic)

The number that is multiplied by itself when raised to a power

Example:

In 5^3 , the 5 is the base.

exponent

exponent

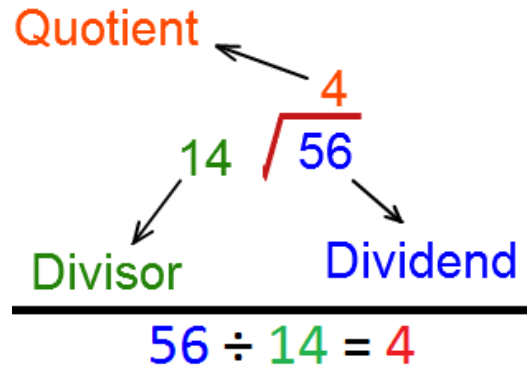
A number that tells how many times the **base** is used as a factor

Example:

$10^3 = 10 \times 10 \times 10$;
the exponent is 3 and
the base is 10.

dividend

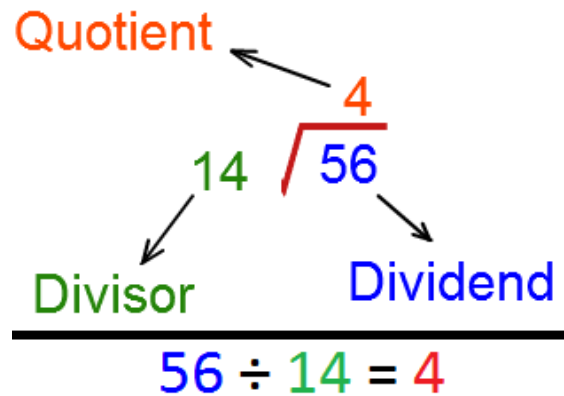
dividend The number to be divided



divisor

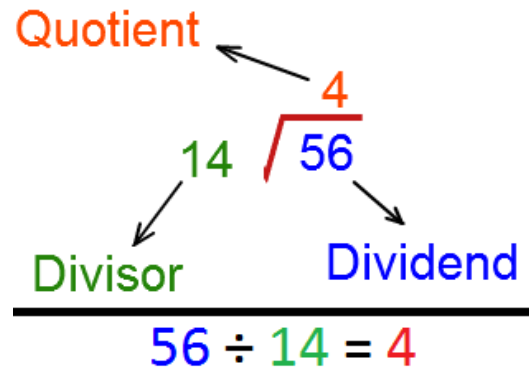
divisor The number used to divide another number

Fold here



quotient

quotient The answer to a division problem



variable

variable

A letter, such as n (or any other letter) that represents a number in an expression or an equation

A number p increased by 22

$$p + 22$$

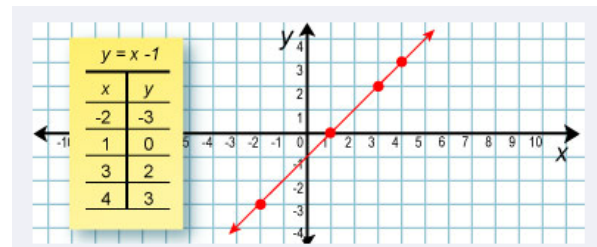
12 more points than a number p times 8

$$8p + 12$$

term

term

A number in a sequence or a variable, such as x or y in an algebraic expression



sequence

sequence

A set of numbers that follows a pattern

Sequence:



("term", "element" or "member" mean the same thing)

algebraic expression

algebraic expression

A mathematical phrase involving a variable or variables, numbers, and operations
Example: $x - 3$

order of operations

order of operations

The order in which operations are done in calculations:

parentheses

exponents

\times and \div

$+$ and $-$

Fold here

$$(2 + 3) \times 5 - 8 + 4 = 23$$

$$5 \times 5 - 8 + 4$$

$$25 - 2$$

$$23$$

1. Parentheses

2. Multiplication/division

3. Addition/subtraction

corresponding

corresponding

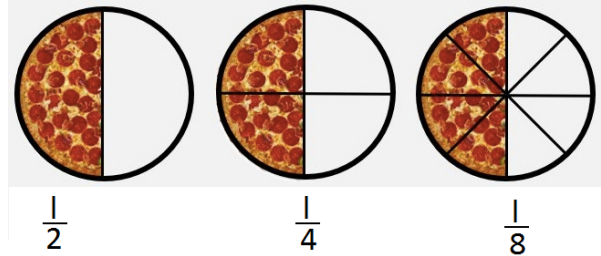
Matching, as in related terms in two sequences

***See pages 208-209 in the text book for an example.*

equivalent fractions

equivalent fractions

Fractions that have different numerators and denominators but name the same amount



simplest form

simplest form

A fraction in which the greatest common factor of the numerator and denominator is 1

To express $\frac{4}{8}$ in simplest form.

$$\frac{4}{8} = \frac{2}{4} = \frac{1}{2} \text{ (simplest form)}$$



benchmark fraction

benchmark fraction

Common fractions used for estimating, such as:

$$\frac{1}{4}, \frac{1}{3}, \frac{1}{2}, \frac{2}{3}, \text{ and } \frac{3}{4}$$

common multiple

common multiple

A number that is a multiple of two or more numbers

Find common multiples of 6 and 8.

6 6, 12, 18, 24, 30, 36, 42, 48, 54...

8 8, 16, 24, 32, 40, 48, 56, 64, 72...

24 and 48 are common multiples.



least common multiple (LCM)

Fold here

least common multiple (LCM)

The least number that is a common multiple of two or more numbers

Find the least common multiple of 6 and 8.

6 6, 12, 18, 24, 30, 36, 42, 48, 54...

8 8, 16, 24, 32, 40, 48, 56, 64, 72...

The LCM is 24.

common denominator

common denominator

A common multiple of the denominator of two or more fractions

$$\frac{1}{15}$$

$$\frac{6}{15}$$

The common denominator is 15.

least common denominator (LCD)

least common denominator (LCD)

The least common multiple of the denominators of two or more fractions

Find the least common denominator of $\frac{1}{6}$ and $\frac{2}{5}$.

Multiples of 6:
6, 12, 18, 24, 30...

Multiples of 5:
5, 10, 15, 20, 25, 30...

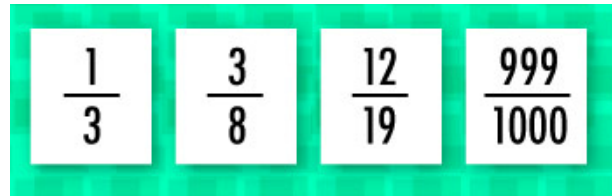
Since the least common multiple of 5 and 6 is 30, the least common denominator of $\frac{1}{6}$ and $\frac{2}{5}$ is also 30.



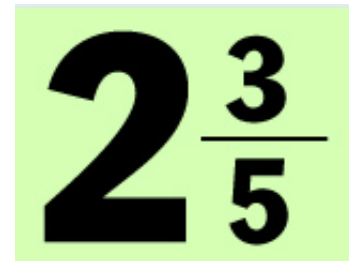
Fold here

proper fraction**proper fraction**

A fraction less than 1; its numerator is less than its denominator.

**mixed number****mixed number**

A number that combines a whole number and a fraction

**improper fraction****improper fraction**

A fraction in which the numerator is greater than or equal to its denominator



reciprocal**reciprocal**

A given number is a reciprocal of another number if the product of the number is one.

Example: The numbers $\frac{1}{8}$ and $\frac{8}{1}$ are reciprocals because $\frac{1}{8} \times \frac{8}{1} = 1$.

resizing

Fold here

resizing

The process of making an object proportionately larger or smaller is resizing.

scaling**scaling**

The process of making an object proportionately larger or smaller keeping the ratio of its dimensions constant.



**three-dimensional
shape (solid)**

**three-
dimensional
shape (solid)**

A solid figure that takes
up space

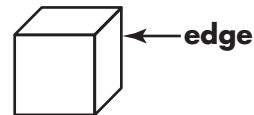


edge

Fold here

edge

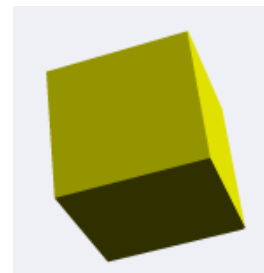
A line segment at which
two faces meet in a solid



cube

cube

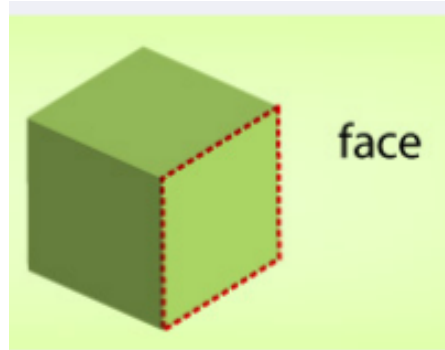
A solid with six flat surfaces
called faces. All of the
faces are squares



face

face

A flat polygon-shaped surface of a polyhedron

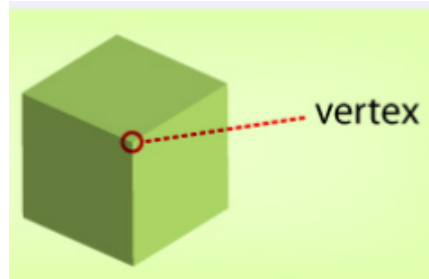


**vertex
(of a solid)**

Fold here

**vertex
(of a solid)**

The point at which three or more edges meet in a solid. The plural form of vertex is vertices



prism

prism

A solid with two parallel bases that are the same size and same shape, and faces that are parallelograms



cylinder

cylinder

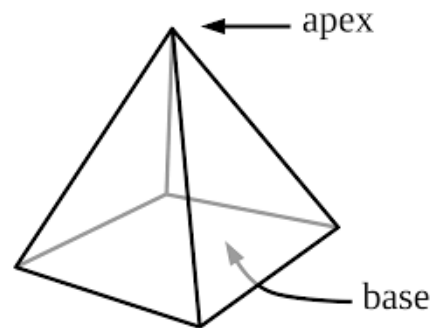
A solid with two circular bases that are the same size, the same shape, and parallel



pyramid

pyramid

A solid with a base that is a polygon and whose other faces are triangles with a common vertex

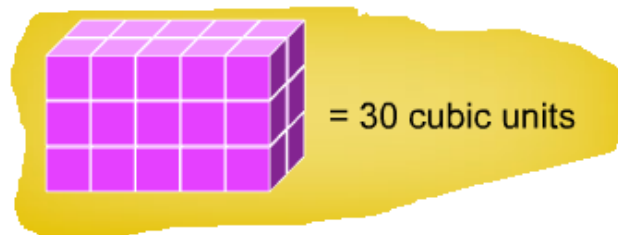


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cubic unit

cubic units

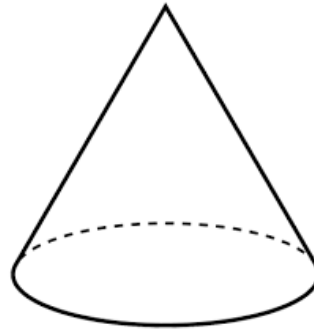
The volume of a cube 1 unit on each edge



cone

cone

A solid with one circular base; the points on the circle are joined to one point outside the base.

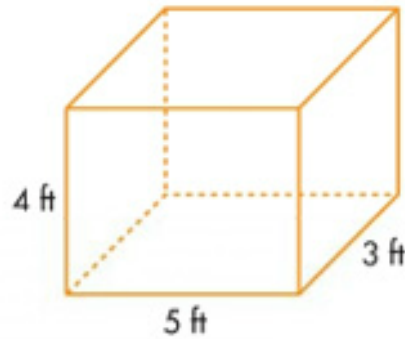


volume

volume

The number of cubic units needed to fill a solid figure

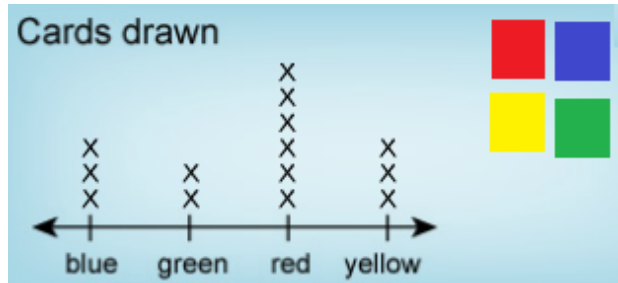
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line plot

line plot

A display of data along a number line

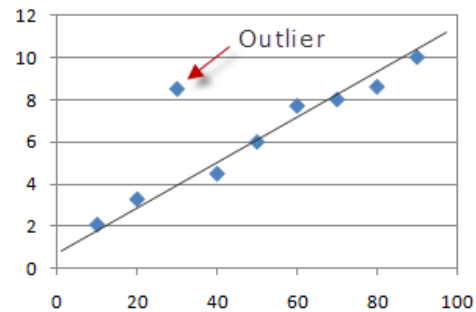


outlier

Fold here

outlier

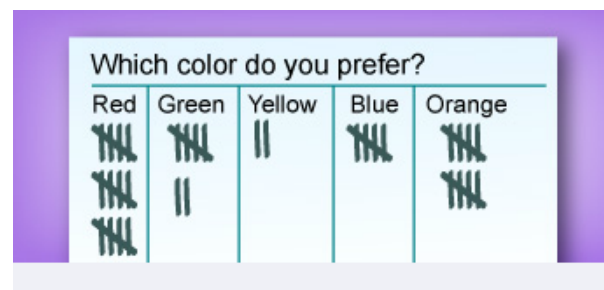
A number in a data set that is very different from the rest of the numbers



survey

survey

A question or a group of questions used to gather information



data

data

Collected information

**frequency
table**

**frequency
table**

A table used to show the number
of times something occurs



| | |
|------------------|----|
| Less than 6 CDs | 5 |
| 6-8 CDs | 6 |
| 8-10 CDs | 8 |
| More than 10 CDs | 12 |

Fold here

sample

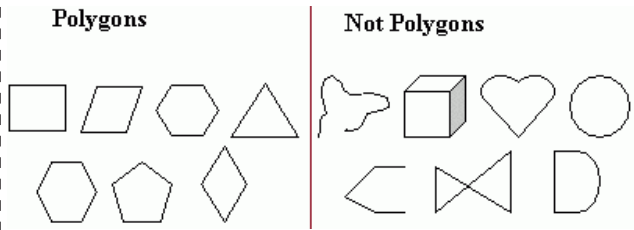
sample

A representative part of a
larger group

polygon

polygon

A closed plane figure made up of line segments



regular polygon

regular polygon

A polygon that has sides of equal length and angles of equal measure

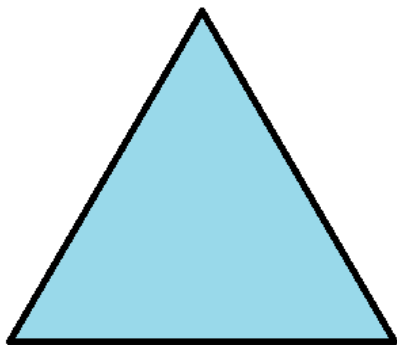
Fold here



triangle

triangle

A polygon with 3 sides



Name _____

quadrilateral

quadrilateral

A polygon with 4 sides



pentagon

pentagon

A polygon with 5 sides



Fold here

hexagon

hexagon

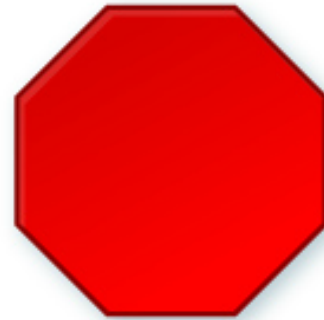
A polygon with 6 sides



octagon

octagon

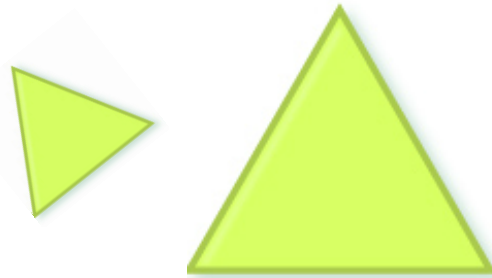
A polygon with 8 sides



equilateral triangle

equilateral triangle

A triangle whose sides all have the same length

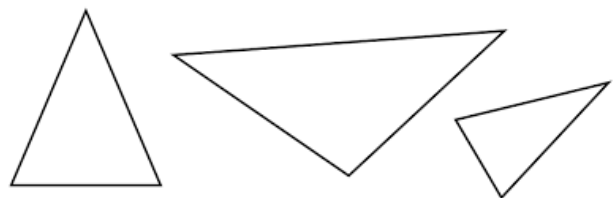


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isosceles triangle

isosceles triangle

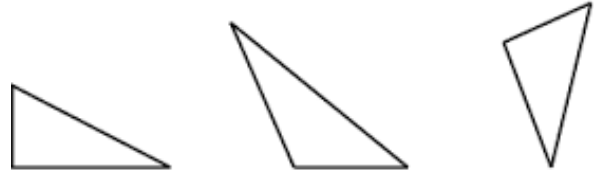
A triangle with two sides of the same length



scalene triangle

scalene triangle

A triangle in which no sides have the same length



scalene triangles



right triangle

right triangle

A triangle in which one angle is a right angle

Fold here

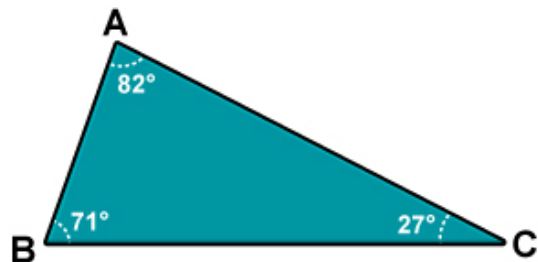


Right Angle Triangle

acute triangle

acute triangle

A triangle whose angles are all acute angles

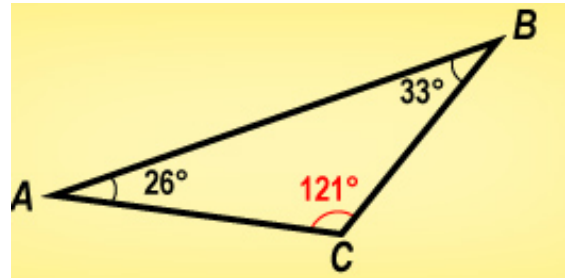


Name _____

obtuse triangle

obtuse triangle

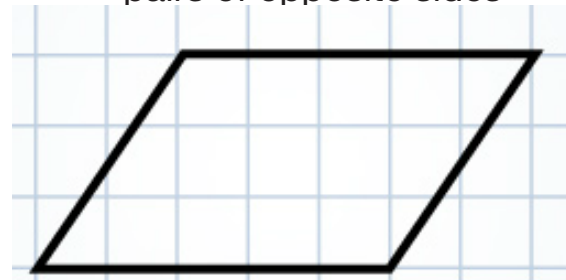
A triangle in which one angle is an obtuse angle



parallelogram

parallelogram

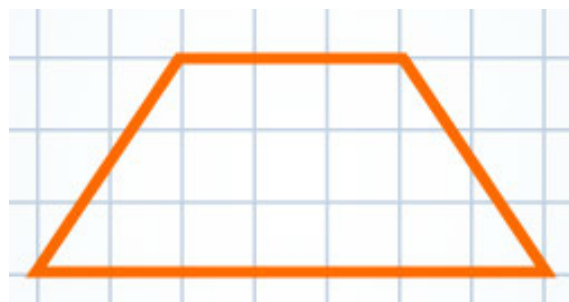
A quadrilateral with both pairs of opposite sides



trapezoid

trapezoid

A quadrilateral that has exactly one pair of parallel sides



rectangle

rectangle

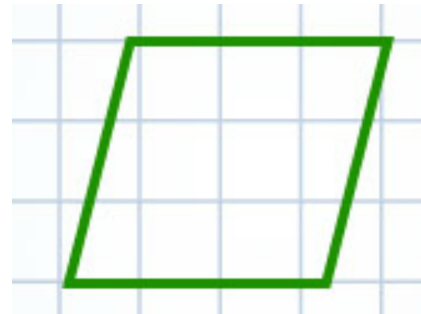
A parallelogram with
four right angles



rhombus

rhombus

A parallelogram with all
sides the same length



square

square

A rectangle with all sides
the same length



generalization

generalization

A general statement

Example: A generalization about rectangles applies to all rectangles

Another **example:**

All even numbers end in
0, 2, 4, 6, or 8.

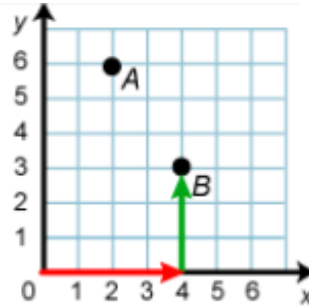


Fold here

coordinate grid

coordinate grid

A grid that makes it easy to locate points on a plane by using an ordered pair of numbers.



- Point A (2,6)
 - Move 2 units right.
 - Move 6 units up.
- Point B (4,3)
 - Move 4 units right.
 - Move 3 units up.

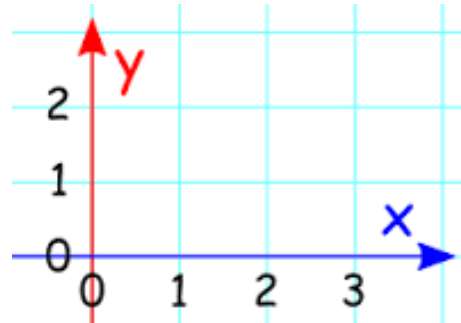


x-axis

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x-axis

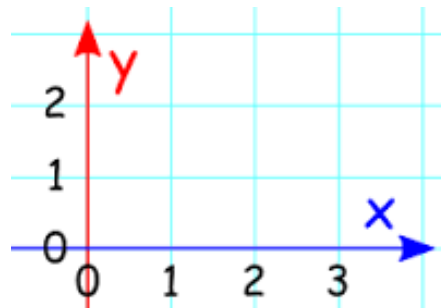
The horizontal axis in a graph or coordinate grid.



y-axis

y-axis

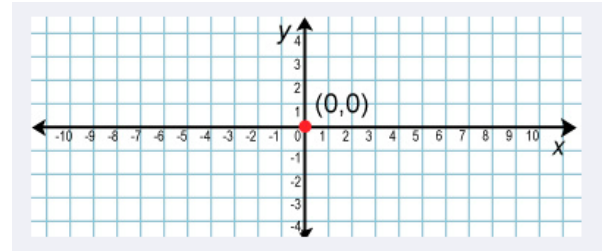
The vertical axis in a graph or coordinate grid.



origin

origin

The point at which the x -axis and the y -axis of a coordinate plane intersect. The origin is represented by the ordered pair $(0, 0)$.

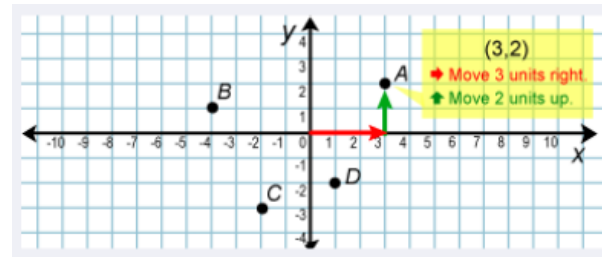


ordered pair

ordered pair

A pair of numbers used to locate a point on a coordinate grid.

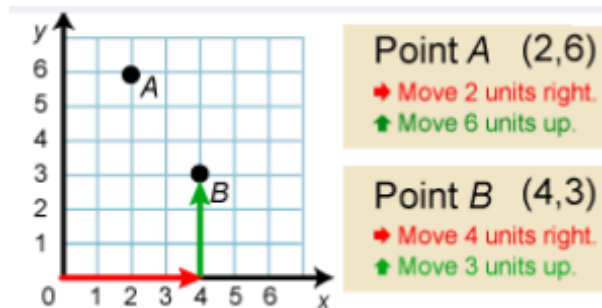
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x-coordinate

x-coordinate

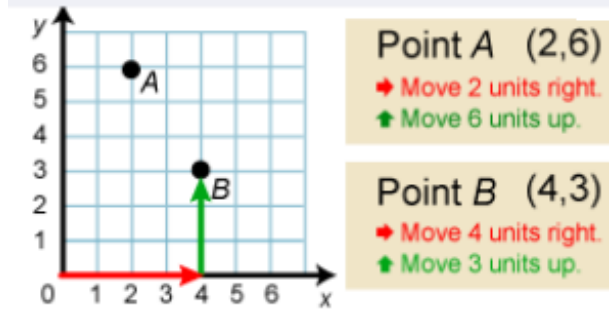
The first number in an ordered pair which names the distance from the origin along the x -axis.



y-coordinate

y-coordinate

The second number in an ordered pair which names the distance from the origin along the y-axis.



Fold here