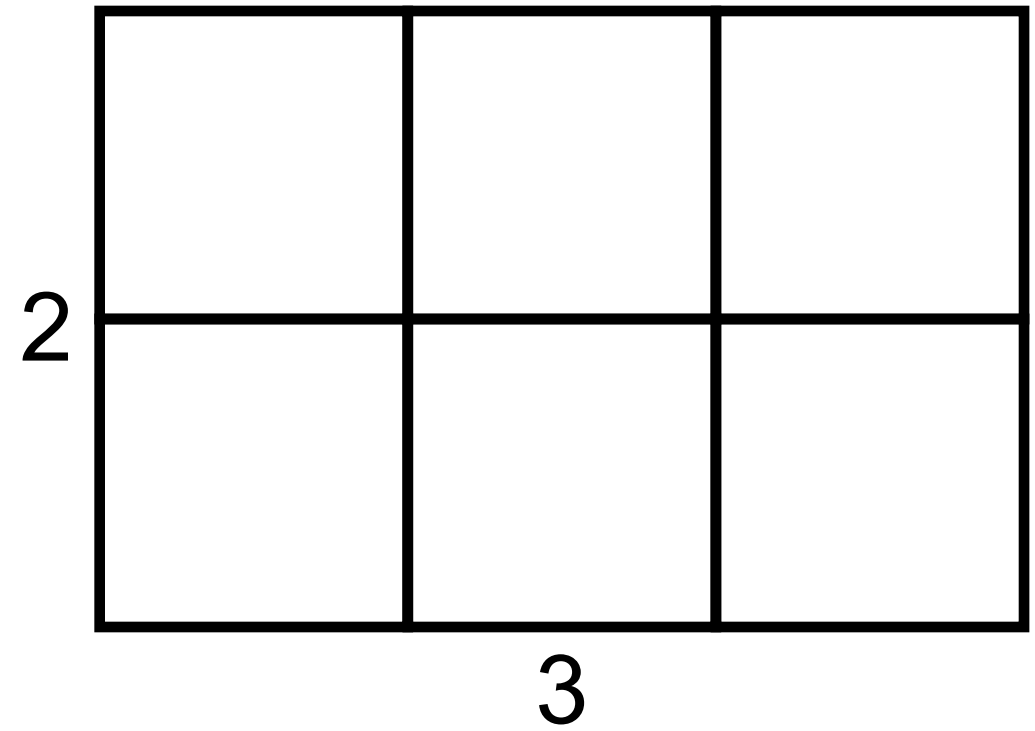


# factor

Any whole number that divides into a given number with no remainder.

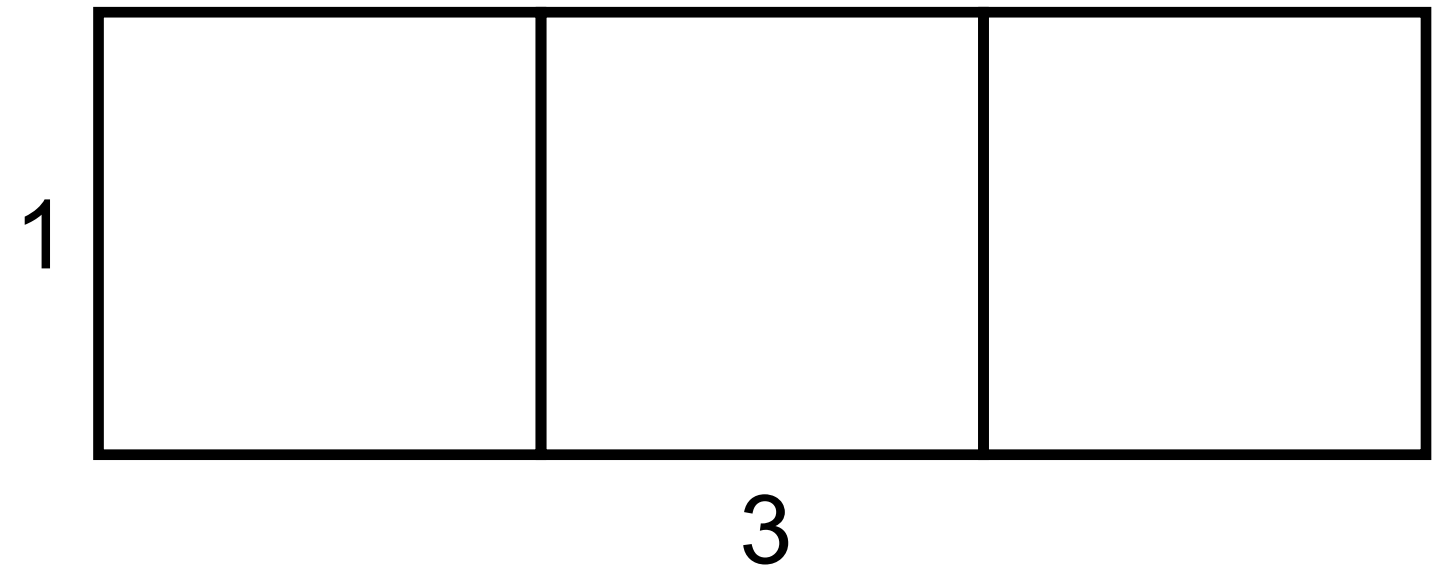


2 and 3 are factors of 6.

---

# prime number

A whole number with exactly 2 different factors.

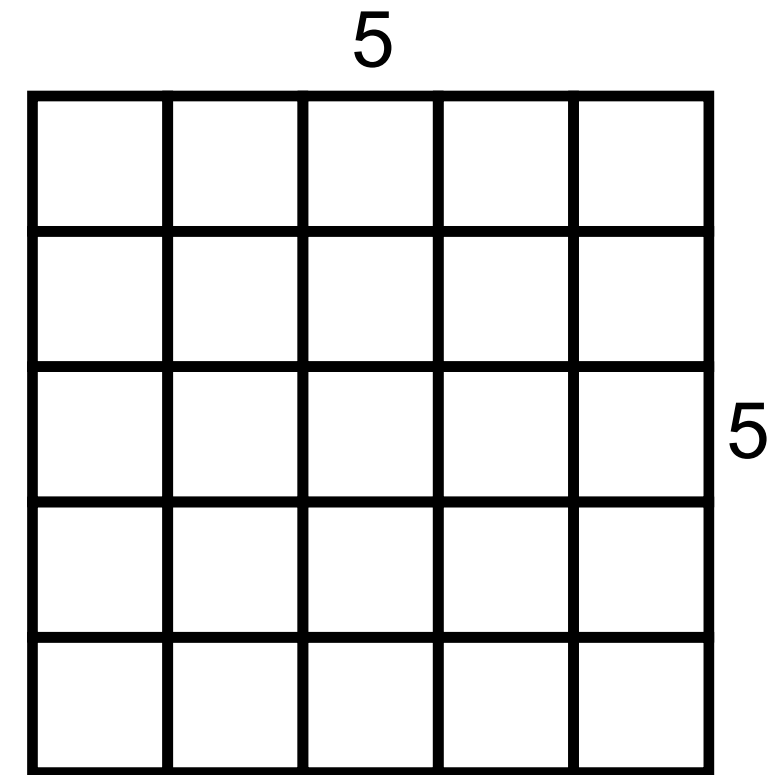


The only factors of 3 are 1 and 3, so 3 is a prime number.

# square number

A whole number with 2 factors that can be used as sides of a square.

The sides of this square are 5 units long, so 25 is a square number.

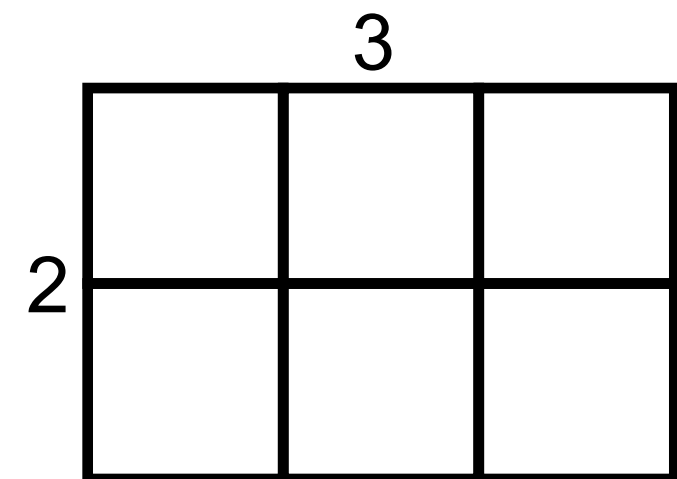
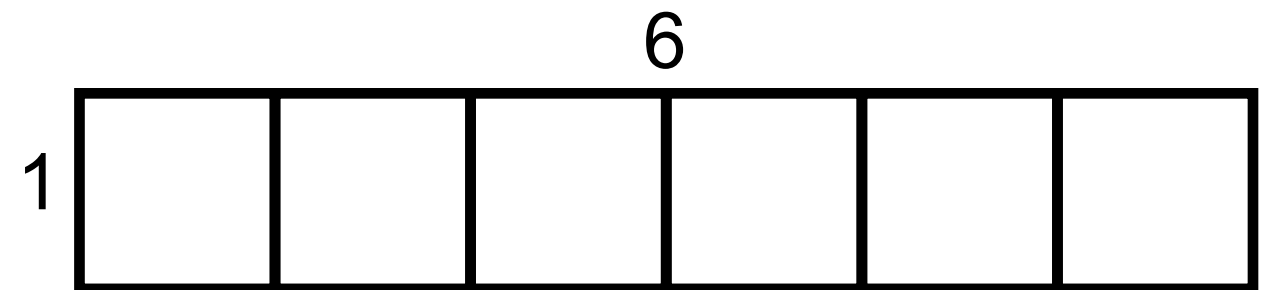


---

# composite number

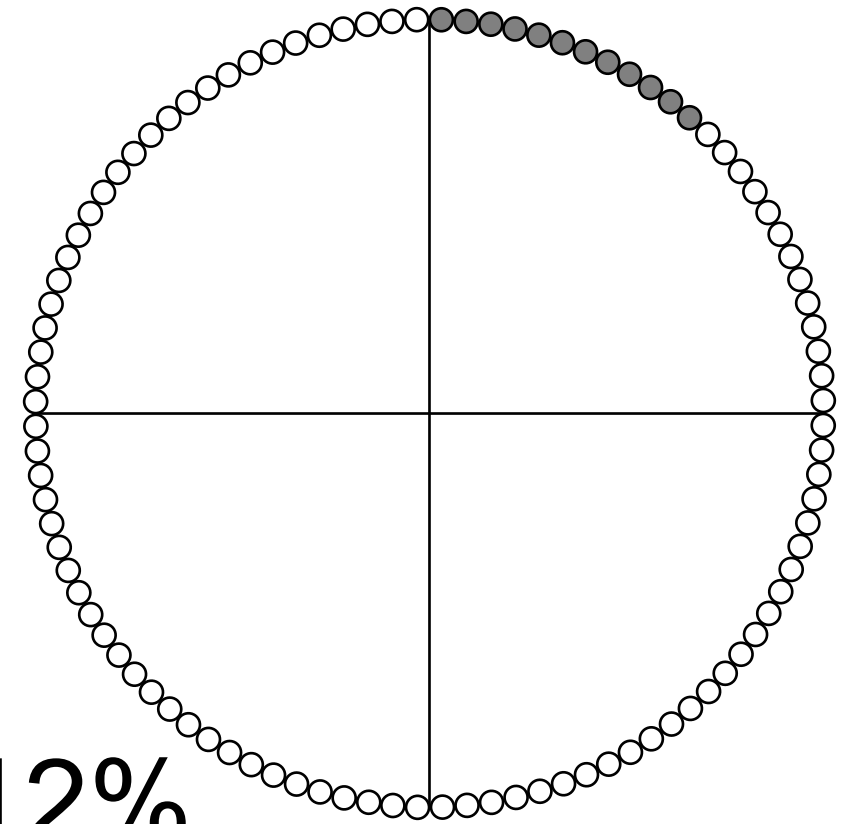
A number with more than 2 factors.

The factors for 6 are 1, 2, 3, and 6, so 6 is a composite number.



# percent

A special ratio that compares a number to 100 using the symbol %.



Twelve of 100 circles are colored in.  $\frac{12}{100} = 12\%$

---

# equation

A statement that 2 mathematical expressions are equal.

$25 + 3$  is not an equation.

$25 + 3 = 28$  is an equation.

# variable

A symbol that stands for a number. Often, the value of that number can change.

In the expression  $2x + 5$ ,  $x$  is a variable. When the value of  $x$  changes, the value of the expression also changes.

---

# multiple

The product of a whole number and any other whole number.

Multiples of 3:

0, 3, 6, 9, 12, 15, ...

Multiples of 5:

0, 5, 10, 15, 20, 25, ...

# Distributive Property

If the addends in an expression have a factor in common, the factor can be used to rewrite the expression.

In  $2d + 4$ ,  $2d$  and  $4$  have a common factor of  $2$ .

So,  $2(d + 2)$  has the same value as  $2d + 4$ .

---

## expression

A mathematical relationship written in numbers, letters, and operation signs.

Expressions:

$$25 + 3, 2x, \frac{1}{2}$$

Not expressions:

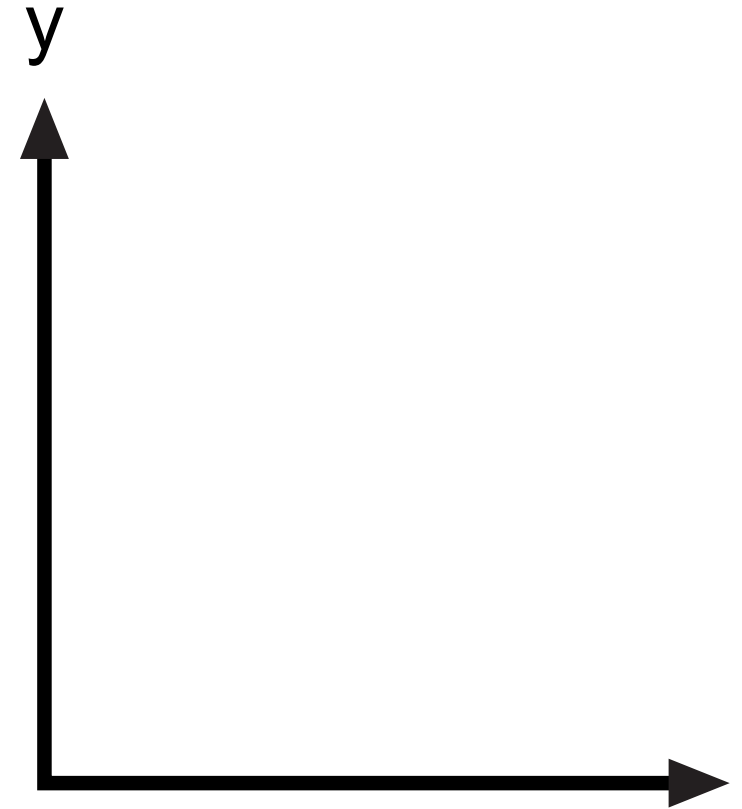
$$25 + 3 = 28, 42 < 54,$$

$$2x = 14$$

# y-axis

The vertical axis on a coordinate grid.

The y-axis is vertical.

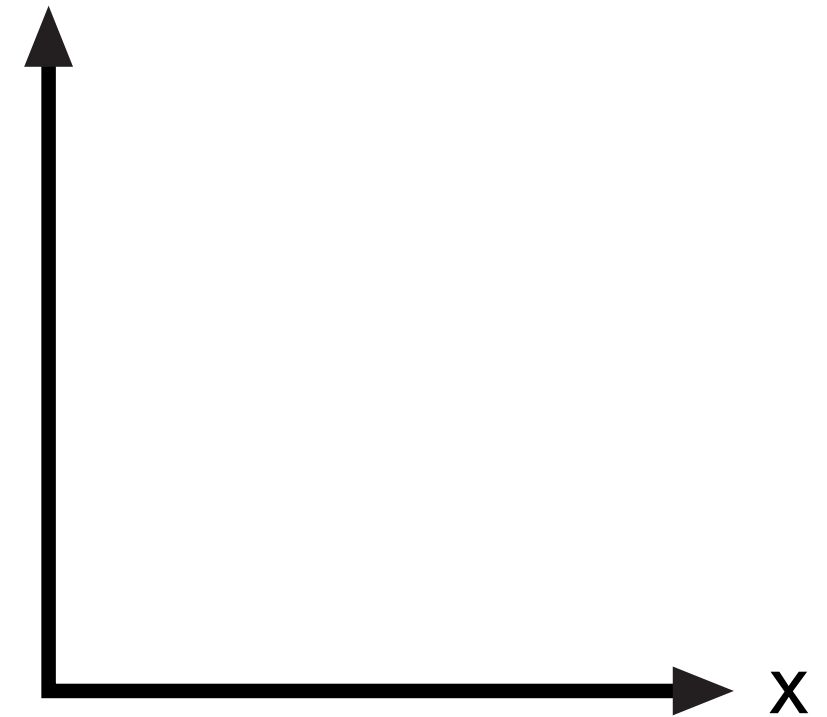


---

# x-axis

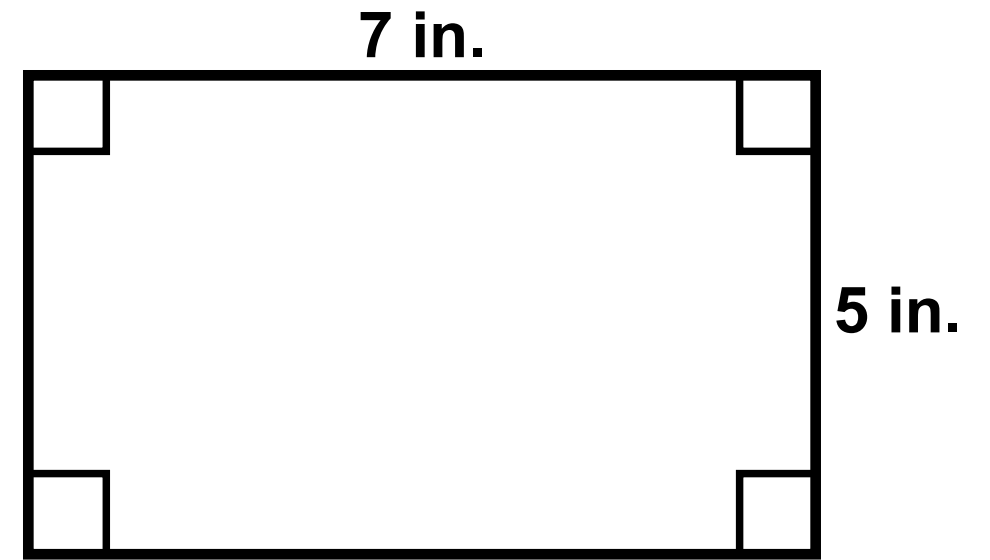
The horizontal axis on a coordinate grid.

The x-axis is horizontal.



# parallel

The relationship between lines that are always the same distance apart.

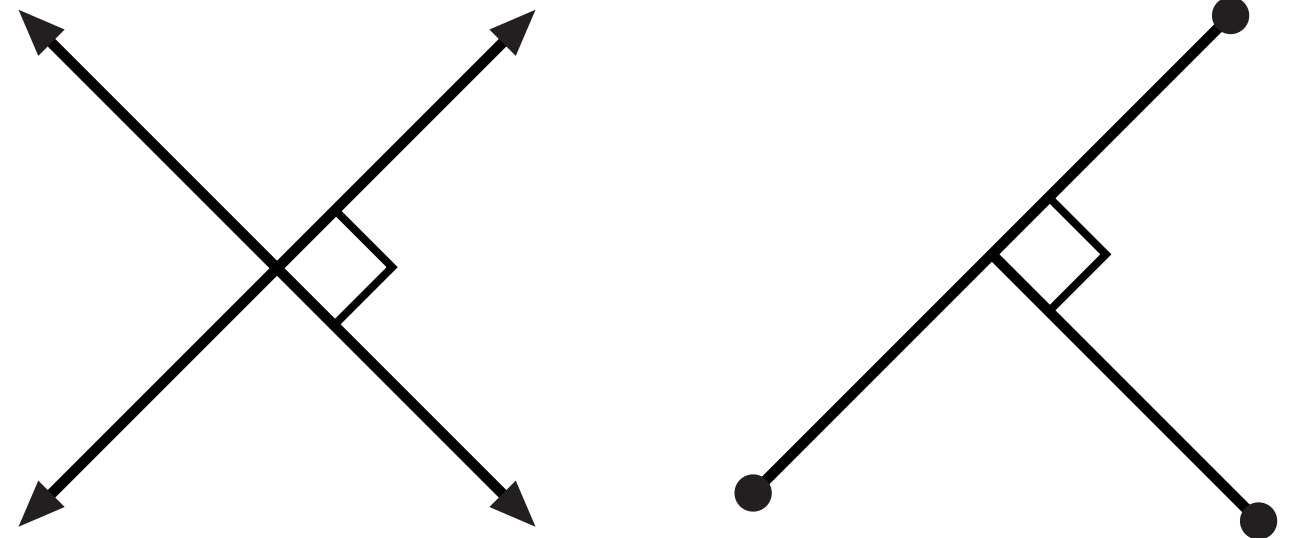


In a rectangle, opposite sides are always the same distance apart, so they are parallel.

---

# perpendicular

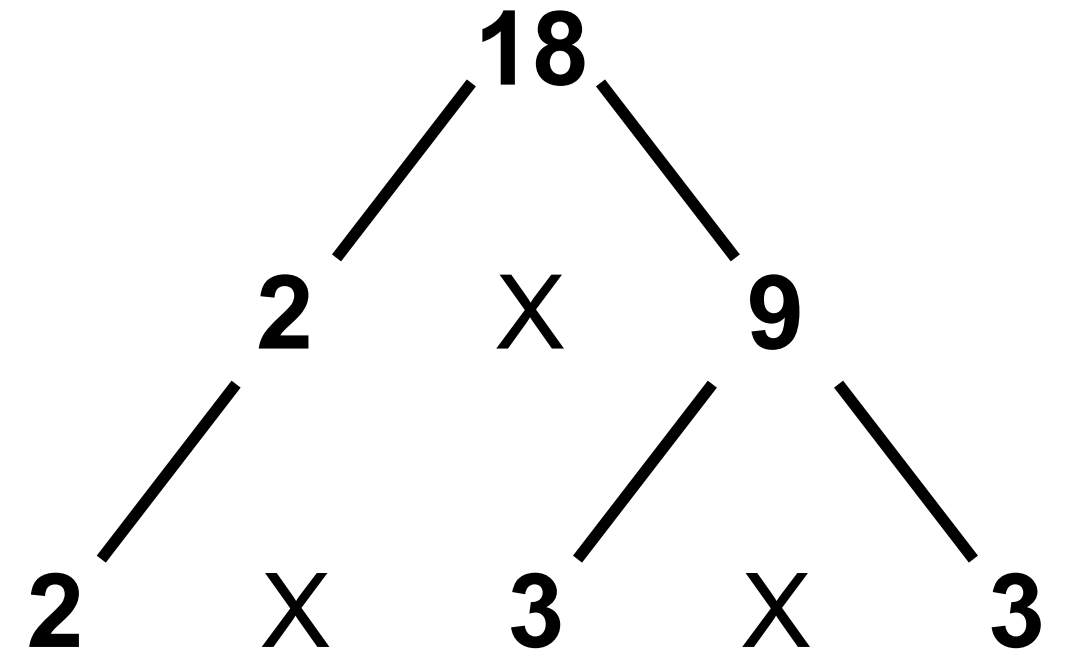
Forming right angles.



Lines and segments that meet or cross at right angles are perpendicular.

# prime factorization

A way to show a number as the product of prime numbers.

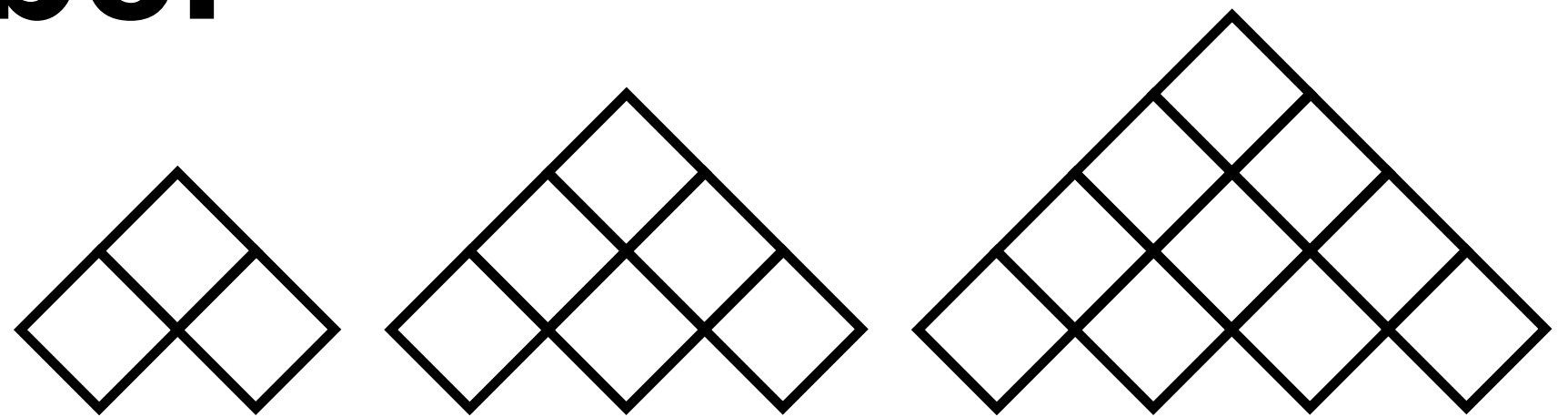


The prime factorization of 18 is  $2 \times 3 \times 3$ , or  $2 \times 3^2$ .

---

# triangular number

A number that can be diagrammed in an array shaped like a triangle.

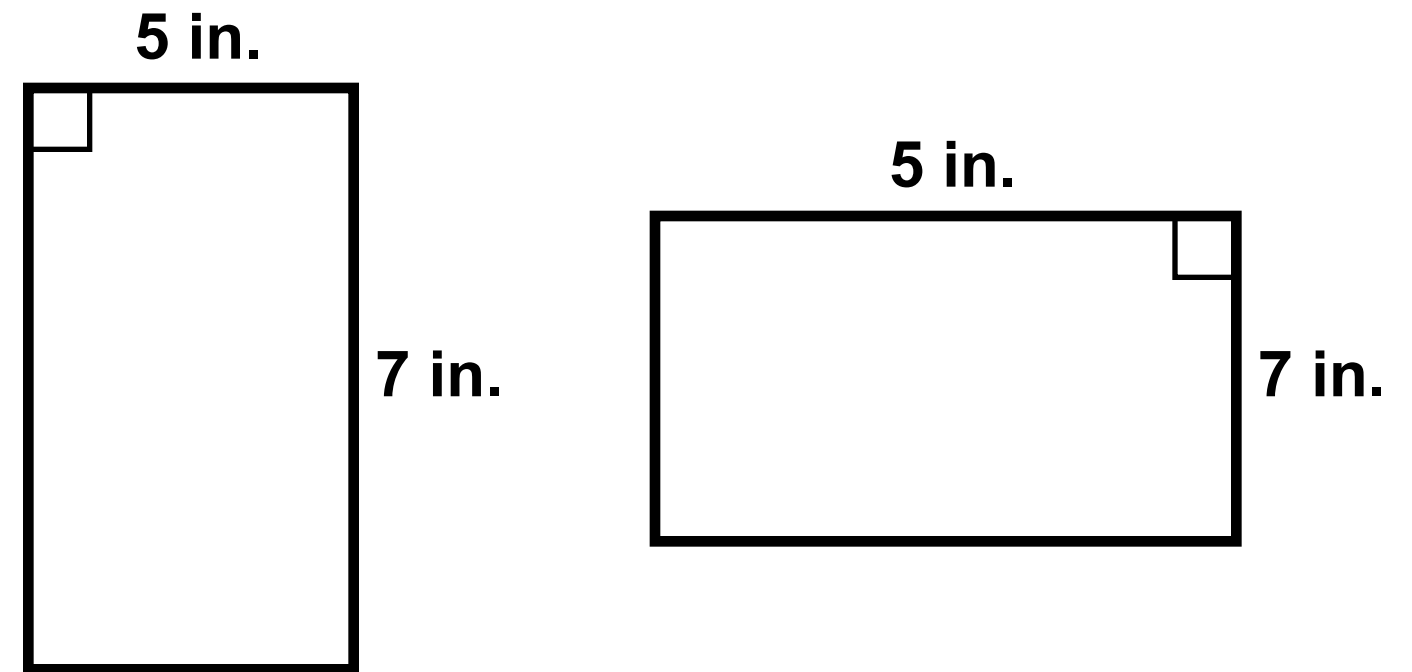


3, 6, and 10 are triangular numbers.



# congruent

Having exactly the same size and shape.



These rectangles are congruent.

---

# exponent

A number that tells how many times to use another number as a factor.

$$2^3 \times 5 = 2 \times 2 \times 2 \times 5$$

# repeating decimal

Division that results in an infinitely repeating sequence of decimal digits.

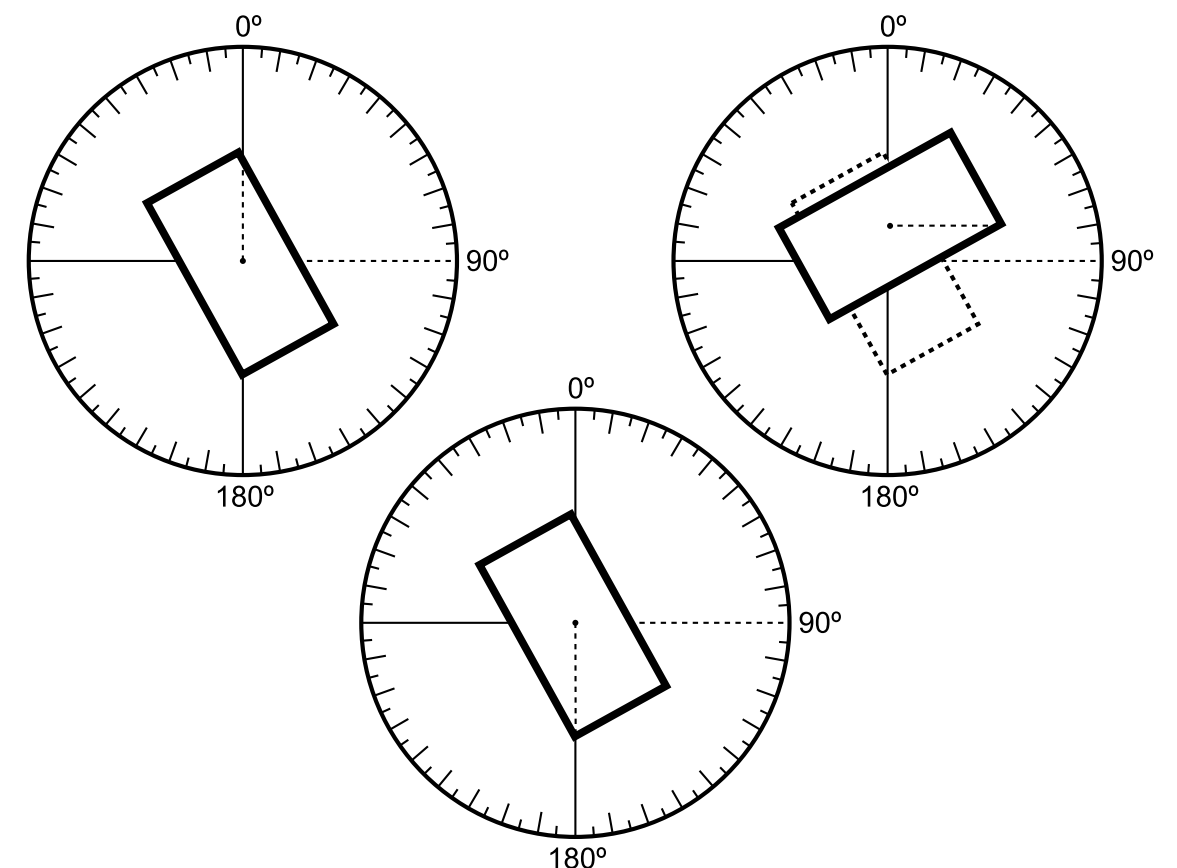
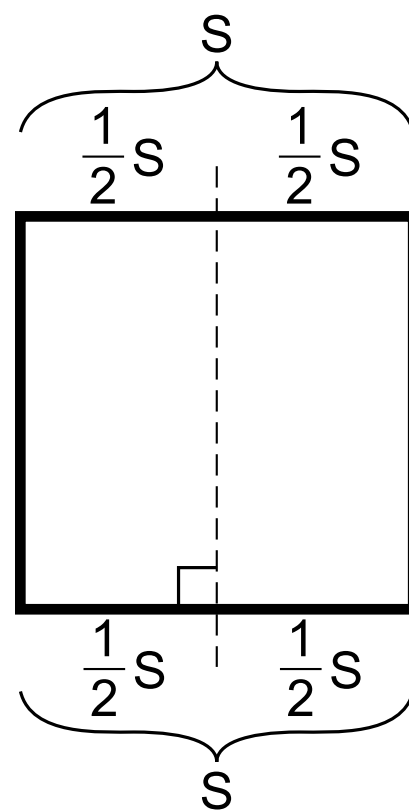
$$2 \div 3 = 0.66666\dots$$

or  $0.\overline{6}$

---

# symmetry

A figure folded or rotated less than  $360^\circ$  that fits on itself has symmetry. A rectangle has both line and rotational symmetry.



# divisible

One number is divisible by another if their quotient is a whole number.

$$6 \div 2 = 3$$

$$6 \div 3 = 2$$

$$6 \div 4 = 1.5$$

6 is divisible by 2 and by 3, but not by 4.

---

# interest

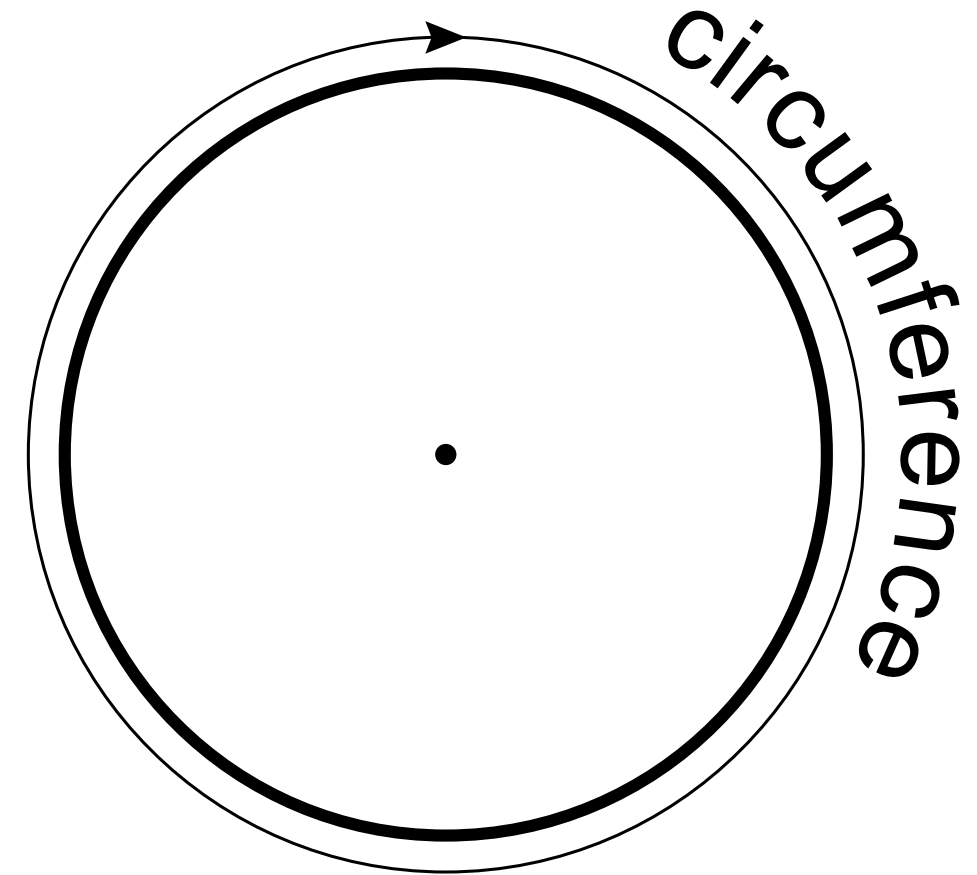
The amount paid to borrow money or earned to lend or deposit money.

$$i = prt$$

If you deposit \$100 for a year at 10% interest per year, you earn \$10 on that deposit.

# circumference

Distance around a circle.

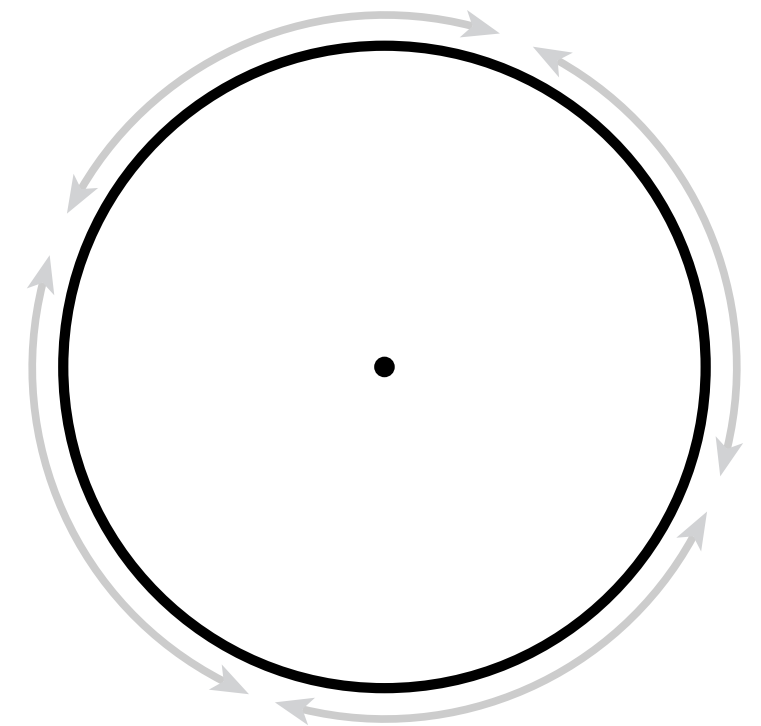
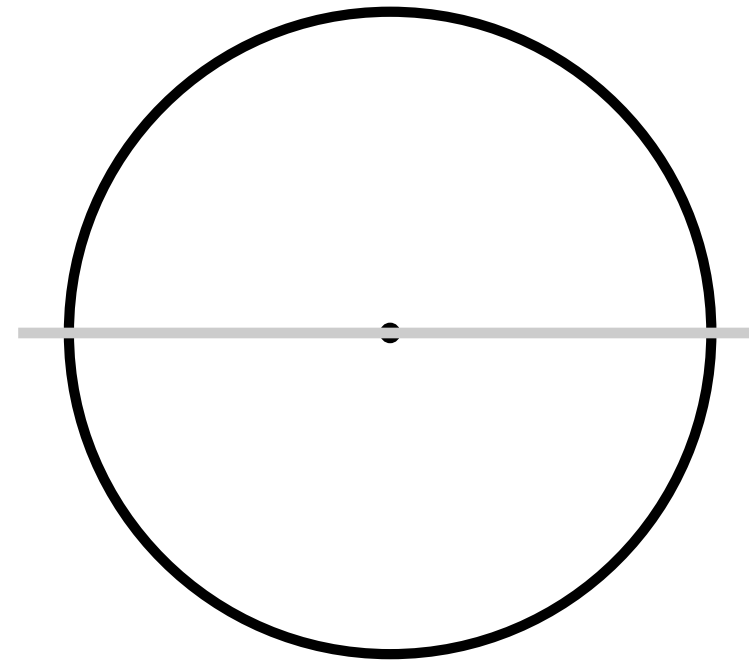


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## pi ( $\pi$ )

The ratio of the circumference to the diameter of a circle.

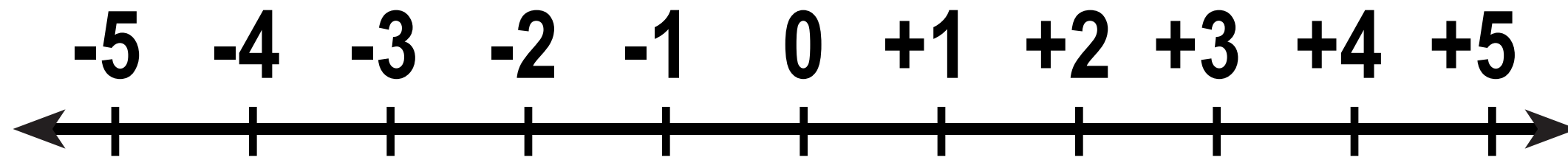
$$\pi = \frac{C}{d}$$



The approximate value of  $\pi$  is 3.14.

# integer

Whole numbers  
and their opposites.



+5 and -5 are integers.

They are the same distance from  
0, but in opposite directions.

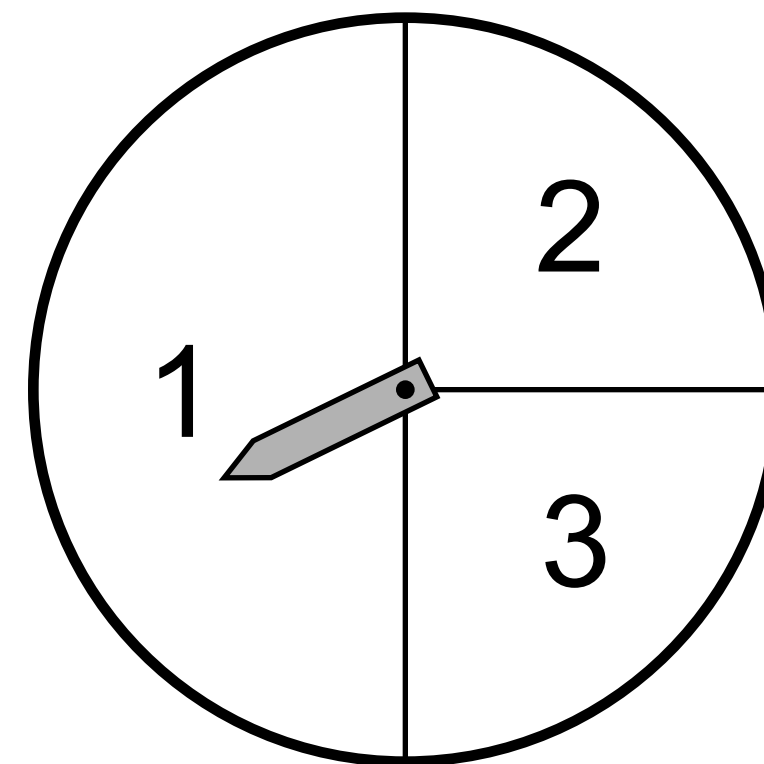
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# probability

The likelihood that an event will occur.

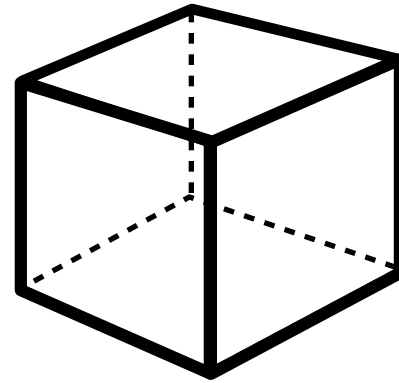
The probability of spinning a 1 is  $\frac{1}{2}$ .

The probability of spinning a 2 is  $\frac{1}{4}$ .

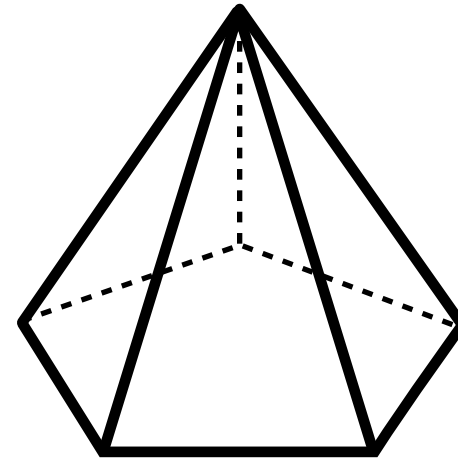


# polyhedron

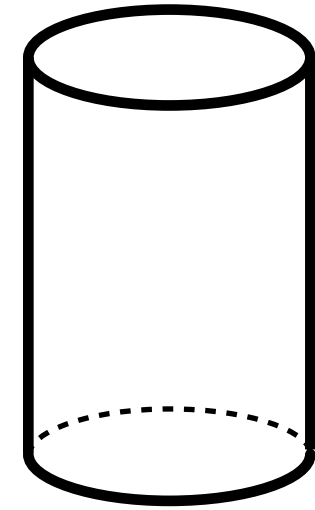
A three-dimensional figure in which all of the faces are polygons.  
The plural of polyhedron is *polyhedra*.



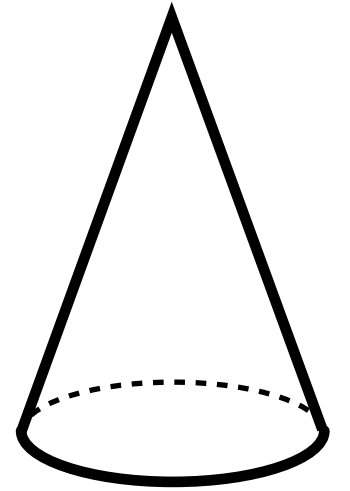
square prism  
(cube)



pentagonal  
pyramid



right  
cylinder



cone

Polyhedra

Not Polyhedra

---

# Fibonacci number

A number from the sequence in which each number is the sum of the 2 previous numbers.

1, 1, 2, 3, 5, 8,  
13, 21, 34, 55, ...