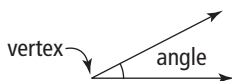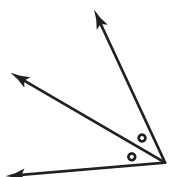# Glossary

A

angle The figure formed by two lines with a common endpoint called a vertex.
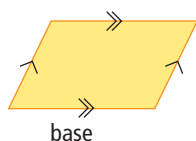

angle bisector The line that divides an angle into two equal parts.

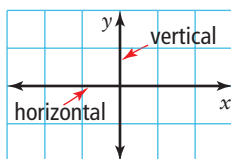**area** The number of square units contained in a two-dimensional region.

B

base (2-D geometry) A side of a two-dimensional closed figure. Common symbol is b.
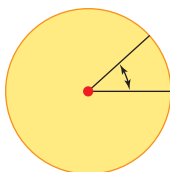

base

C

Cartesian plane The plane formed when a horizontal number line and a vertical number line cross. Also called a coordinate grid.


central angle An angle formed by two radii of a circle. The vertex of the angle is at the centre of the circle.

circle A set of points that are all the same distance from a fixed point called the centre.

circle graph A graph that represents data using sections of a circle.

circumference The distance around a circle. This is a linear measurement. Represented by the variable, C.

circumference
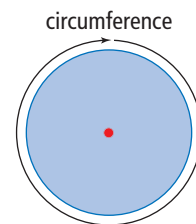
common denominator A common multiple of the denominators of a set of fractions.

A common denominator for $\frac{1}{2}$ and $\frac{1}{3}$ is 6 because a common multiple of 2 and 3 is 6.

common factor A number that two or more numbers are divisible by.

4 is a common factor of 8 and 12.

constant A number that does not change. Increases or decreases the value of the expression no matter what the value of the variable.

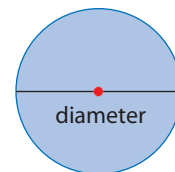In $2x + 4$, the number 4 is the constant.

coordinates The values in an ordered pair (x, y).

D

denominator The number of equal parts in the whole or the group.

$\frac{3}{4}$ has denominator 4.

diameter The distance across a circle through its centre. Represented by the variable, d.

diameter

divisible When a number can be divided by another number evenly, with no remainder.

E

equally likely Each outcome has the same chance of occurring.

equation A mathematical statement with two expressions that have the same value.

$3a - 21 = 4$ and $2a = 6 - b$ are equations.

equivalent fractions Fractions that represent the same part of a whole or group.

$\frac{1}{3}$ and $\frac{2}{6}$ are equivalent fractions.

estimate To approximate an answer.

experimental probability The probability of an event occurring based on experimental results.

exponent The number of factors you multiply.

In the term 5^2, the number 2 is called an exponent.

expression Any single number or variable, or a combination of operations involving numbers and variables.

$2y - 7$, $11x$, and 14 are expressions.

F

factors Numbers that are multiplied to produce a product.

favourable outcome A successful result in a probability experiment.

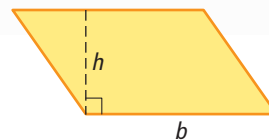**fraction** A number that represents a part of a whole or a part of a group.

frequency table A table used to show the number of occurrences in an experiment or survey.

G

graph A visual way to show the relationship between two sets of numbers.

H

height The perpendicular distance from the base to the opposite side. Common symbol is h.

I

improper fraction A fraction that has a numerator greater than the denominator, such as $\frac{9}{8}$.

independent events A result in which the outcome of one event has no effect on the outcome of another event.
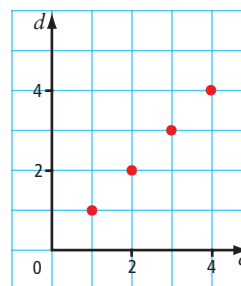
integer Any of the numbers …, -3, -2, -1, 0, $+1$, $+2$, $+3$, ….

L

line A set of points that contains no endpoints.

line segment The part of a line between two endpoints.

linear relation A pattern made by two sets of numbers that results in points along a straight line when graphed on a coordinate grid.

lowest terms When the numerator and denominator of a fraction have no common factors other than 1.

M

mean The sum of a set of values divided by the number of values in the set.

6, 8, 5, 9, 12

$$\text{Mean} = \frac{6 + 8 + 5 + 9 + 12}{5}$$
$$= 8$$

measure of central tendency A value that represents the centre of a set of data. It can be the mean, median, or mode.

median The middle number in a set of data after the data have been arranged in order.

For the data 2, 5, 6, 8, and 9, the median is 6. For the data 1, 3, 7, 7, 9, and 10, the median is 7.

mixed number A number made up of a whole number and a fraction, such as $3\frac{1}{2}$.

mode The most frequently occurring number in a set of data. There can be more than one mode.

For the data 3, 5, 7, 7, and 9, the mode is 7. For the data 2, 2, 4, 6, 6, 8, and 11, the modes are 2 and 6.

multiple The product of a given number and a natural number like 1, 2, 3, and so on.

Some multiples of 3 are 3, 6, 9, 12, and 15.

N

natural number Any of the numbers 1, 2, 3, …

numerical coefficient A number that multiplies the variable.

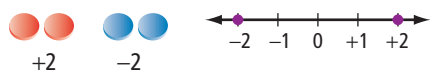In $2x + 4$, the number 2 is the numerical coefficient.

numerator The number of equal parts being considered in the whole or the group.

$\frac{3}{4}$ has numerator 3.

O

opposite integers Two integers with the same numeral, but different signs. Two integers represented by points that are the same distance in opposite directions from zero on a number line.

$+2$ and -2 are opposite integers.

opposite operations Operations that "undo" other operations. Some people call them "inverse operations."

Addition and subtraction are opposite operations.

Multiplication and division are opposite operations.

order of operations Correct sequence of steps for a calculation. Brackets first, then multiply and divide in order from left to right, and then add and subtract in order from left to right.

ordered pair A pair of numbers used to locate a point on a coordinate grid.
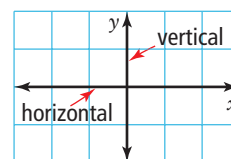
origin The point where the x-axis and the y-axis cross.

outcome One possible result of a probability experiment.

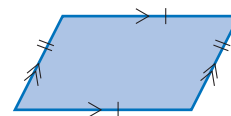**outlier** A value that is much smaller or larger than the other data values.

overestimate An estimate that is larger than the actual answer.

P

parallel Describes lines in the same plane that never cross or intersect.

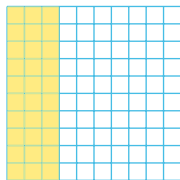**parallelogram** A four-sided figure with opposite sides parallel and equal in length.

pattern An arrangement of shapes, colours, numbers, letters, words, and so on, for which you can predict what comes next.
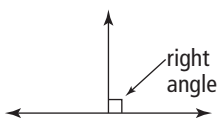
percent Means "out of 100" or "hundredths."

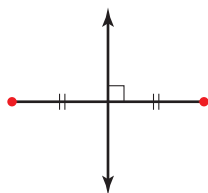30% means 30 hundredths or 30 out of 100 or $\frac{30}{100}$ or 0.30.

perimeter The distance around the outside of a two-dimensional shape or figure.

perpendicular Describes lines that intersect at right angles (90°).

right angle

perpendicular bisector A line that divides a line segment in half and is at right angles to it.

pi The ratio of the circumference of a circle to its diameter. The symbol for pi is π.

probability The likelihood or chance of an event occurring. Probability can be expressed as a ratio, fraction, or percent.
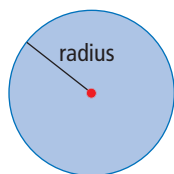
proper fraction A fraction that has a numerator less than its denominator, such as $\frac{2}{9}$.
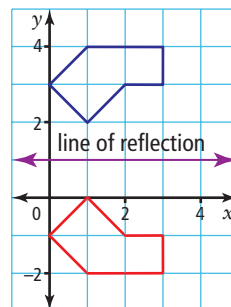
Q

quadrants The four regions on the coordinate grid.

R

radius The distance from the centre of a circle to the outside edge. Represented by the variable, r.

radius

random An event in which every outcome has an equal chance of occurring.

range The difference between the largest and smallest values in a data set.

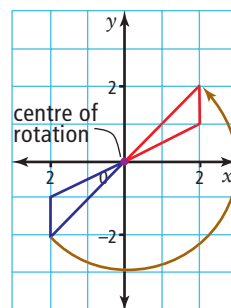**reflection** A flip over a mirror line.

line of reflection

relationship A pattern formed by 2 sets of numbers.

repeating decimal A decimal number with a digit or group of digits that repeats forever. Repeating digits are shown with a bar.
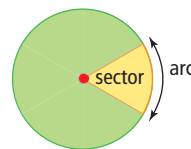
$0.777... = 0.\overline{7}$

rotation A turn about a fixed point called the centre of rotation.

centre of rotation

S

sample space All possible outcomes of an experiment.

sector The section of a circle formed by two radii and an arc of the circle connecting the radii.

sector   arc

semi-circle Half of a circle.

T

table of values A table showing two sets of related numbers.

tally chart A table used to record experimental results or data. Tally marks are used to count the data.
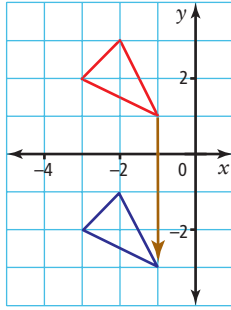
terminating decimal A decimal number in which the digits stop.

0.4, 0.86, and 0.25 are terminating decimals.

theoretical probability The expected probability of an event occurring.

transformation Moves one geometric figure onto another. Examples are translations, reflections, and rotations.

translation A slide along a straight line.

tree diagram A diagram with a branch for each possible outcome of an event.

U

underestimate An estimate that is smaller than the actual answer.

unit fraction A fraction with a numerator of 1.
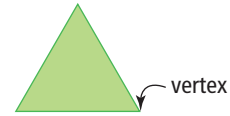
$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$, etc.

V

value A known or calculated amount.

variable A letter that represents an unknown number.

In $2x + 4$, the letter x is the variable.

vertex A point where two sides of a figure meet. Plural is *vertices*.

W

whole number Any of the numbers 0, 1, 2, 3, …

X

x-axis The horizontal number line on the coordinate grid.

x-coordinate The first number in the ordered pair describing a point on a coordinate grid.

The x-coordinate of point $P(2, 5)$ is 2.

Y

y-axis The vertical number line on the coordinate grid.

y-coordinate The second number in the ordered pair describing a point on a coordinate grid.

The y-coordinate of point $P(2, 5)$ is 5.

Z

zero pair A pair of integer chips, with one chip representing $+1$ and one chip representing -1. The pair represents zero because $(+1) + (-1) = 0$.