

Technical English

Mathematical Symbols

+ plus sign / addition sign: The plus sign represents:

a. the notion of positive: Any number bigger than zero is a positive number and can be written with or without a plus sign in front of it. Thus, +5 (plus five) and 5 (five) are the same number.

b. the operation of addition : $3 + 5 = 8$ three plus five equals eight, five added to three makes eight, three added to five makes eight, if you add five to three you get eight

Addition gives us a sum. In $3 + 5 = 8$, the sum is eight.

- minus sign / subtraction sign: The minus sign represents:

a. the notion of negative: Any number smaller than zero is a negative number and is written with a minus sign in front of it. -3 minus three

b. the operation of subtraction: $8 - 5 = 3$. eight minus five equals three, five subtracted from eight equals three, if you subtract five from eight you get three, if you take five from eight you get three

Subtraction gives us a difference. In $8 - 5 = 3$, the difference is three.

× times sign / multiplication sign. The times sign represents:

Multiplication: $5 \times 6 = 30$. five times six equals thirty, five multiplied by six equals thirty, five sixes are thirty, if you multiply 5 by 6 you get thirty

Multiplication gives us a product. In $5 \times 6 = 30$, the product is thirty.

÷ OR /division sign: The division sign represents:

Division: $15 \div 3 = 5$, $15 / 3 = 5$. Fifteen divided by three equals five, five goes into fifteen three times, if you divide fifteen by three you get five, if you divide three into fifteen you get five

Division gives us a quotient. In $15 \div 3 = 5$, the quotient is five.

Let us summarize the above four operations as:

operation		result	
addition	"plus"	$2 + 2 = 4$	sum
subtraction	"minus"	$5 - 3 = 2$	difference

multiplication "times" $3 \times 5 = 15$ **product**

division "divided by" $21 / 7 = 3$ **quotient**

= equals sign: The equals sign represents equality: $3 + 4 = 7$, three plus four equals seven

Note that we usually say equals NOT equal: two plus two equals four, two plus two equal four

< less than: $3 < 4$. three is less than four

> greater than. $4 > 3$ four is greater than three

≠ NOT equal to $x \neq z$ x is not equal to z

≥ greater than or equal to: $x \geq z$. x is greater than or equal to z

≤ less than or equal to $z \leq x$: z is less than or equal to x

.decimal separator | point

The decimal separator separates a whole number from its fractional part to the right: 1.23

In English, the decimal separator is usually a point (.). Note that in some languages the decimal separator is a comma (,).

,thousands separator In English, the thousands separator separates whole numbers into groups of three from the right. 10,987,654,321

In English, the thousands separator is usually a comma (,). Note that in some languages the thousands separator is a point (.) or sometimes a space ().

% percent sign: The percent sign indicates a number or ratio as a fraction of 100 (percentage).

40% forty percent. Eg: Only forty percent of the people voted for her.

What percentage voted for her? Forty percent.

√ square root: $\sqrt{16} = 4$. the square root of sixteen equals four, the square root of sixteen is four

Geometric shapes

Triangle, rectangle, circle, square.

Vocabulary: length, width, height, perimeter, area, volume, radius, diameter, unit.

Perimeter, Area, and Volume

Area formulas

Shape	Formula	Variables
Square	$A = s^2$	s is the length of the side of the square.
Rectangle	$A = LW$	L and W are the lengths of the rectangle's sides (length and width).
Triangle	$A = \frac{1}{2}bh$	b and h are the base and height
Circle	$A = \pi r^2$	r is the radius.