



We normally refer to this as 'subbing in'

Subbing in to an algebraic formula

The formula may be written as ' $x^2 + 2x + 3 = f(x)$ ', or ' $\frac{t+2}{t+3} = s$ ', or perhaps ' $a + b = c$ '.

1. Determine what you will be subbing in. Perhaps you wish to know the value of $f(x)$ when $x = 5$, or the value of c when $a = 1$ and $b = 4$.
2. Anywhere that the letter is written, replace it with the numerical value that you are subbing in. For example, $5^2 + 2(5) + 3 = f(5)$ is $x^2 + 2x + 3 = f(x)$ when $x = 5$.
3. Complete the calculation. For example, $f(5) = 5^2 + 2(5) + 3 = 25 + 10 + 3 = 38$.

Subbing in to a formula

The formula may be written as $\text{speed} = \frac{\text{distance}}{\text{time}}$, or something similar, with words representing the information that it needs.

1. Look through the information you have available and pick out what you need. For example, to calculate the speed in the formula above, we need to have the distance travelled and the time taken to travel that distance.
2. Wherever there is a word in the formula, swap it for its numerical value. For example, a person walks 1 mile in 20 minutes. To calculate their speed, we

$$\text{write speed} = \frac{\text{distance}}{\text{time}} = \frac{1 \text{ mile}}{20 \text{ minutes}}$$

3. Complete the calculation. For example, $\text{speed} = \frac{1 \text{ mile}}{20 \text{ minutes}} =$

$$\frac{1}{20} \text{ miles/minute.}$$

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