

Substitution

There are two types of substitution.

1. Given an equation and some values of different quantities, we can substitute the values of those quantities into the equation.

Example: $v = 3z^2 - 2(x + y)$. If $x = 4$, $y = 1$, $z = 2$ then $v = 3z^2 - 2(x + y) = 3 \times 2^2 - 2(4 + 1) = 2$

3. We can substitute equations into other equations. Let $a = b^2 + 2cd$ and $c = b + d$ then we can substitute the second of these into the first.

$$a = b^2 + 2cd = b^2 + 2(b + d)d = b^2 + 2bd + 2d^2$$