

Inverse Operations

operations that undo each other

Terminology:

Constant: Counting numbers. Number by itself with no letter (variable). Just a number *ie* 4

Variable: the letter. Used to represent an unknown value.

Coefficient: the number before the variable (letter). tells how many you have $3x$

SOLVING EQUATION

Are there brackets?

() | |

Y
E
S

Is there a constant on the same side of the equal sign as the variable?

Y
E
S

Is there a coefficient other than 1 attached to the variable?

Y
E
S

check your solution.

Y
E
S

Multiply the number on the outside by every number and/or letter on inside

Y
E
S

Remove constant through addition / subtraction
-Always the opposite

Y
E
S

Remove coefficient through multiplication / division.

Y
E
S

Substitute the answer into original problem.
Both sides should be equal

Y
E
S

$$3(x + 4) = 6$$

$$3x + 12 = 6$$

$$\frac{3x}{3} = \frac{-6}{3}$$

$$x = -2$$

Check

$$3(x + 4) = 6$$

$$3(-2 + 4) = 6$$

$$3(2) = 6$$

$$6 = 6$$