**Two Step Equations**

**Equation**

A mathematical sentence built from [expressions](http://www.mathwords.com/e/expression.htm) using one or more equal signs (=).

Examples:

http://www.mathwords.com/e/e_assets/equation1.gif

http://www.mathwords.com/e/e_assets/equation2.gif

http://www.mathwords.com/e/e_assets/equation3.gif

**Term**

Parts of an [expression](http://www.mathwords.com/e/expression.htm) or [series](http://www.mathwords.com/s/series.htm) separated by + or – signs, or the parts of a [sequence](http://www.mathwords.com/s/sequence.htm) separated by commas.

|  |  |
| --- | --- |
| Expression | Terms |
| 5*a*3 – 2*xy* + 3 | 5*a*3, 2*xy*, and 3 |
| http://www.mathwords.com/t/t_assets/term%20expression1.gif | *p*, 2*q*, *a*2, and *b* |
|  |  |

**Constant**

A term without a variable, (just numbers). Example, in 5X + 4 - 7 = 2.3 + ⅕

the constants in this equation are 4, -7, 2.3, and ⅕

**Coefficient**

The number that is in front of a variable, so, 5 is the coefficient in the term 5X, (X is the variable).

**Step 1.**

Eliminate the constant that is on the side of the variable, by adding its’ opposite.

*Purpose: To get variable on one side of the equation by itself.*

14 + 7X = 28 X - 2 = 18

-14 -14 7 +2 = +2

Rewrite equation:

7X = 14 X = 20

7

**Step 2.**

Perform the opposite operation that combines the variable to the coefficient.

*Purpose: To separate variable from the coefficient.*

**7X** this is a multiplication operation, which means 7 times X. The opposite operation of multiplication is division. X is a division operation, which can also be written as 1X. The opposite of division is multiplication.

7 7

7X = 14 X ÷ 7 or 1 X ÷ 1 which really means X × 7 = 20 x 7

7 7 7 7 7 7 1 1

Rewrite equation:

X = 2 X = 140