

Example 1: $X + 4 = 3$.

GOAL: Get the variable (X) by itself.

To get X by itself, you must get rid of the 4!
The 4 is being added to X. To get rid of the 4 you must do the inverse (opposite) of what is already being done. Inverse of addition is subtraction.

$$\begin{array}{r|l} X + 4 = 3 & \\ \downarrow -4 & -4 \\ \hline X & = -1 \end{array}$$

Example 2: $X - 6 = 8$.

GOAL: Get the variable (X) by itself.

To get X by itself, you must get rid of 6!
The 6 is being subtracted from X. To get rid of the 6 you must do the inverse (opposite) of what is already being done. Inverse operation is addition.

$$\begin{array}{r|l} X - 6 = 8 & \\ \downarrow +6 & +6 \\ \hline X & = 14 \end{array}$$

ANSWER KEY: 1-STEP EQUATIONS

Example 3: $4x = 12$

GOAL: Get the variable (X) by itself.

To get X by itself, you must get rid of the 4!
The 4 is being multiplied by X. To get rid of the 4 you must do the inverse (opposite) of what is already being done. Inverse operation is division.

$$\begin{array}{r|l} 4x = 12 & \\ \downarrow 4 & 4 \\ \hline X & = 3 \end{array}$$

Example 4: $-\frac{w}{7} = 3$

GOAL: Get the variable (w) by itself.

To get w by itself, you must get rid of -7!
The operation between w and -7 is division.
To get rid of -7 do the inverse (opposite) of what is already being done. Inverse operation is multiplication.

$$\begin{array}{r|l} -\frac{w}{7} = 3 & \\ \downarrow -7 \times & -7 \times \\ \hline -7 \times -\frac{w}{7} = 3 & -7 \times -7 \\ & w = -21 \end{array}$$