

Your goal is to get x by itself.

Get rid of everything except the x .

You need $|x = 6$, or $6 = |x$, or even $x = \frac{9-7}{r^5}$

Ask two questions:

1) **What do I want to get rid of?**

2) **How is it held there?**

(Now use opposite operation to **get rid of it.**)

If held by multiplication, then divide.

If held by division, then multiply.

Solve for x .

$$\frac{\cancel{8}x}{\cancel{8}} = \frac{20}{5}$$

$$x = 4$$

$$\frac{\cancel{x}x}{\cancel{x}} = \frac{k}{r}$$

$$x = \frac{k}{r}$$

$$\frac{\cancel{3}x}{\cancel{1}} = 10 \cdot \cancel{3}$$

$$x = 30$$

$$\frac{\cancel{3}}{\cancel{1}} \left(\frac{1}{\cancel{3}} x \right) = \frac{10 \cdot \cancel{3}}{\cancel{1}}$$

$$x = 30$$

$$\cancel{r} \cdot \frac{x}{\cancel{r}} = q \cdot r$$

$$x = qr$$

Ask two questions:

1) What do I want to **get rid of**?

2) How is it held there?

(Now use opposite operation to **get rid of it**.)

If held by addition or subtraction,
use opposite sign of the term you want to **get rid of**.

Solve for x .

$$\begin{array}{r} x + 7 = 10 \\ -7 \quad -7 \\ \hline \end{array}$$

$$x = 3$$

$$\begin{array}{r} x + r = k \\ -r \quad -r \\ \hline \end{array}$$

$$\begin{array}{r} x = k - r \\ x = -r + k \end{array}$$

$$\begin{array}{r} x - 9 = -20 \\ +9 \quad +9 \\ \hline \end{array}$$

$$x = -11$$

Solve for k .

$$\begin{array}{r} -4 + k = 7 \\ +4 \quad +4 \\ \hline \end{array}$$

$$k = 11$$

$$\begin{array}{r} k + 8 = -10 \\ -8 \quad -8 \\ \hline \end{array}$$

$$k = -18$$

$$\begin{array}{r} 2 = -6 + k \\ +6 \quad +6 \\ \hline \end{array}$$

$$8 = k$$

Ask two questions:

1) What do I want to **get rid of**?

2) How is it held there?

(Now use opposite operation to **get rid of it**.)

Solve each equation.

$$2x + 5 = 19$$

$$\begin{array}{r} -5 \\ -5 \end{array}$$

$$\frac{2x}{2} = \frac{14}{2}$$

$$x = 7$$

$$14 = 3a - 1$$

$$\begin{array}{r} +1 \\ +1 \end{array}$$

$$\frac{15}{3} = \frac{3a}{3}$$

$$5 = a$$

$$13 - 5y = -27$$

$$\begin{array}{r} -13 \\ -13 \end{array}$$

$$\frac{-5y}{-5} = \frac{-40}{-5}$$

$$y = 8$$

$$4m - 6 = 93 - 7m$$

$$\begin{array}{r} +7m \\ +7m \end{array}$$

$$11m - 6 = 93$$

$$\begin{array}{r} +6 \\ +6 \end{array}$$

$$\frac{11m}{11} = \frac{99}{11}$$

$$m = 9$$

$$-8 + 11n = 6n - 28$$

$$\begin{array}{r} -6n \\ -6n \end{array}$$

$$-8 + 5n = -28$$

$$\begin{array}{r} +8 \\ +8 \end{array}$$

$$\frac{5n}{5} = \frac{-20}{5}$$

$$n = -4$$