

Literal Equations

5 Solve for w.

$$P = 2\ell + 2w$$

6 Solve for b.

$$A = \frac{1}{2}bh$$

To solve a literal equation for one variable, use _____.

What is a literal equation?

A literal equation is _____

⑦ Solve for l .

$$S = \pi r l + \pi r^2$$

⑧ Solve for w .

$$S = \frac{w - 10e}{m}$$

Two-Step Equations

Recall: Solve for x .

$$x + 7 = -12$$

① Solve for a .
 $a + b = c$

Recall: Solve for y .

$$y - 9 = 34$$

② Solve for d .
 $d - e = f$

Recall: Solve for x .

$$-6x = -30$$

③ Solve for r .
 $C = 2\pi r$

Recall: Solve for y .

$$\frac{y}{-4} = 8$$

④ Solve for m .
 $D = \frac{m}{V}$

One-Step Equations

Literal Equations

5 Solve for w.

$$P = 2l + 2w$$

$$-2l \quad -2l$$

$$\frac{P - 2l}{2} = \frac{2w}{2}$$

$$\frac{P - 2l}{2} = w$$

6 Solve for b.

$$2 \cdot A = \frac{1}{2}bh \cdot 2$$

$$\frac{2A}{h} = \frac{bh}{h}$$

$$\frac{2A}{h} = b$$

To solve a literal equation for one variable, use inverse operations.

Addition & Subtraction
Multiplication & Division
Squares & Square Roots

What is a literal equation?

A literal equation is an equation
with two or more variables.

⑦ Solve for l .

$$S = \pi r l + \pi r^2$$

$$\begin{array}{cc} -\pi r^2 & -\pi r^2 \\ \underline{S - \pi r^2} & = \underline{\pi r l} \\ \pi r & \pi r \end{array}$$

$$\frac{S - \pi r^2}{\pi r} = l$$

⑧ Solve for w .

$$m \cdot S = \frac{w - 10e}{m} \cdot m$$

$$\begin{array}{cc} Sm = w - 10e \\ + 10e & + 10e \end{array}$$

$$Sm + 10e = w$$

Recall: Solve for x .

$$x + 7 = -12$$

$$\begin{array}{cc} -7 & -7 \\ \underline{x + 7} & = \underline{-12 - 7} \\ x & = -19 \end{array}$$

① Solve for a .
 $a + b = c$

$$\begin{array}{cc} -b & -b \\ \underline{a + b} & = \underline{c - b} \\ a & = c - b \end{array}$$

Recall: Solve for y .

$$y - 9 = 34$$

$$\begin{array}{cc} +9 & +9 \\ \underline{y - 9} & = \underline{34 + 9} \\ y & = 43 \end{array}$$

② Solve for d .
 $d - e = f$

$$\begin{array}{cc} +e & +e \\ \underline{d - e} & = \underline{f + e} \\ d & = f + e \end{array}$$

Recall: Solve for x .

$$-6x = -30$$

$$\begin{array}{cc} -6 & -6 \\ \underline{-6x} & = \underline{-30} \\ x & = 5 \end{array}$$

③ Solve for r .

$$C = \frac{2\pi r}{2\pi}$$

$$\frac{C}{2\pi} = r$$

Recall: Solve for y .

$$-4 \cdot \frac{y}{-4} = 8 \cdot -4$$

$$y = -32$$

④ Solve for m .

$$V \cdot D = \frac{m}{V} \cdot V$$

$$Dv = m$$

Two-Step Equations

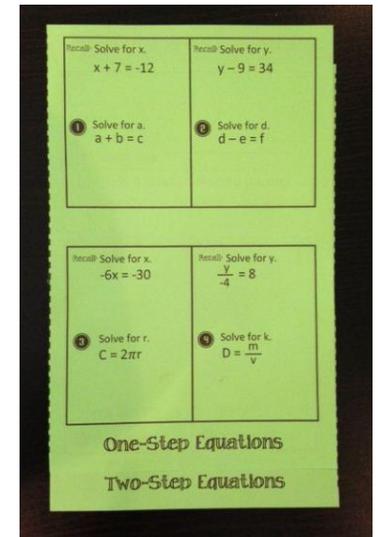
One-Step Equations

© Lisa Davenport 2013

Directions

Step 1: Print pages 1 & 2 front to back. Flip along the long edge.

Step 2: Cut along the dotted line, creating two half strips of paper. Line up the bottom of the pages as shown.



Step 3: Fold over the top portion of both sheets and secure with a few staples.

The final product should look like this:

