

# Howdy!!!!

Coach Watson

**Algebra**

What you need:

Pencil

Calculator

Go over Quiz

# 1-Step Equations:

$$26 = 8 + x$$

$$\begin{array}{r} -8 \quad -8 \\ \hline 18 = x \end{array}$$

$$\begin{array}{r} -w \quad -w \\ \hline 26 - w = x \end{array}$$

$$x - 12 = 19$$

$$\begin{array}{r} +12 \quad +12 \\ \hline x = 31 \end{array}$$

$$x - w = 19$$

$$\begin{array}{r} +w \quad +w \\ \hline x = 19 + w \end{array}$$

$$\frac{11x}{11} = \frac{-44}{11}$$

$$x = -4$$

$$\frac{11x}{11} = \frac{-44}{11}$$

$$x = \frac{-44}{11}$$

$$2 \cdot \frac{x}{2} = 18 \cdot 2$$

$$x = 36$$

$$2 \cdot \frac{x}{2} = 18 \cdot 2$$

$$x = 18w$$

# 2-Step Equations:

$$8x + 7 = 31$$

$$\begin{array}{r} -7 \quad -7 \\ \hline 8x = 24 \\ \hline x = 3 \end{array}$$

$$\begin{array}{r} -7 \quad -7 \\ \hline 8x = 24 \\ \hline x = \frac{24}{8} \end{array}$$

$$68 = 12x + 8$$

$$\begin{array}{r} -8 \quad -8 \\ \hline 60 = 12x \\ \hline \frac{60}{12} = \frac{12x}{12} \\ 5 = x \end{array}$$

$$\begin{array}{r} -w \quad -w \\ \hline 68 - w = 12x \\ \hline 68 - w = x \end{array}$$

$$-9x + 1 = -80$$

$$\begin{array}{r} -1 \quad -1 \\ \hline -9x = -81 \\ \hline \frac{-9x}{-9} = \frac{-81}{-9} \\ x = 9 \end{array}$$

$$\begin{array}{r} -1 \quad -1 \\ \hline -9x = -81 \\ \hline \frac{-9x}{-9} = \frac{-81}{-9} \\ x = \frac{81}{9} \end{array}$$

$$\frac{x}{9} - 1 = -2$$

$$9 \cdot \frac{x}{9} = -1 + 9$$

$$x = -9$$

$$\begin{array}{r} 9y + 4 \\ \hline 9 \cdot \frac{x}{9} = -2 + 9 \\ \hline x = -9 \end{array}$$

$$6 = \frac{x}{4} + 2$$

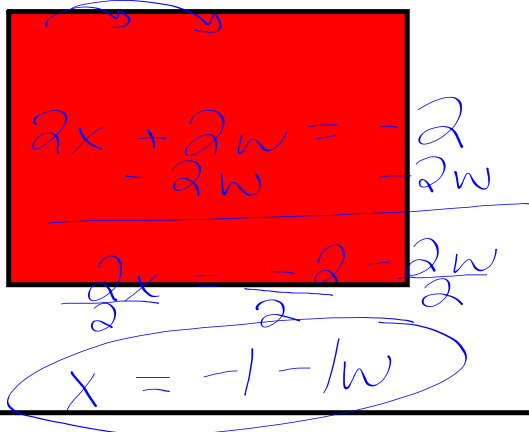
$$2w - yw = x$$

## Multi-Step Equations:

---

$$2(x+5) = -2$$

$$2x + 10 = -2$$

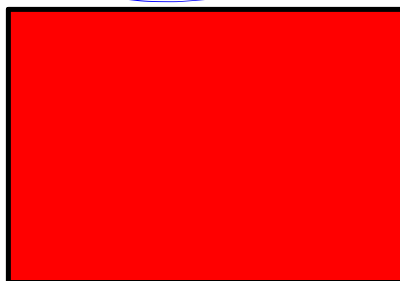


Handwritten solution for the first equation:

$$\begin{aligned} 2x + 2w &= -2 \\ -2w & \quad -2w \\ \hline 2x &= -2 - 2w \\ x &= -1 - w \end{aligned}$$

---

$$10(x-9) = -10$$



## Some Common Formulas to Solve

$$r = \frac{d}{t} \quad \text{solve for } d$$

$$tr = d$$

$$F = m \cdot a \quad \text{solve for } m$$

$$\frac{F}{a} = m$$

$$A = \frac{1}{2}bh \quad \text{solve for } h$$

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

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

$$P = 2l + 2w \quad \text{solve for } w$$

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

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

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

# Challenge

---

Solve for  $\square$

$$\cancel{0} \cdot \frac{\square \triangle X - \cancel{\text{scribble}}}{\cancel{0}} = \textcircled{0} \cdot 0$$

$$\square \triangle X - \text{scribble} = \textcircled{0} 0 + \text{scribble}$$

$$\frac{\square \triangle X}{\triangle X} = \frac{\textcircled{0} 0 + \text{scribble}}{\triangle X}$$

$$\square = \frac{\textcircled{0} 0 + \text{scribble}}{\triangle X}$$

# Class Practice



**LITERAL EQUATIONS WORKSHEET**

Solve for the indicated variable in the parenthesis ON A SEPARATE SHEET OF PAPER!

1)  $P = IRT$  (T)

2)  $A = 2(L + W)$  (W)

3)  $y = 5x - 6$  (x)

4)  $2x - 3y = 8$  (y)

5)  $\frac{x+y}{3} = 5$  (x)

6)  $y = mx + b$  (b)

7)  $ax + by = c$  (y)

8)  $A = h(b + c)$  (b)

9)  $V = LWH$  (L)

10)  $A = 4r^2$  ( $r^2$ )

11)  $V = \pi r^2 h$  (h)

12)  $7x - y = 14$  (x)

13)  $A = \frac{x+y}{2}$  (y)

14)  $R = \frac{E}{I}$  (I)

15)  $x = \frac{yz}{6}$  (z)

16)  $A = \frac{r}{2L}$  (L)

17)  $A = \frac{a+b+c}{3}$  (b)

18)  $12x - 4y = 20$  (y)

19)  $x = \frac{2y-z}{4}$  (z)

20)  $P = \frac{R-C}{N}$  (R)

$$(10) \quad \frac{A}{4} = \frac{4r^2}{4} \quad (r^2)$$

$$\frac{A}{4} = r^2$$

$$(5) \quad 3 \cdot \frac{x+y}{3} = 5 \cdot 3 \quad (x)$$

$$\begin{array}{r} x + y = 15 \\ -y \quad -y \\ \hline \end{array}$$
$$x = 15 - y$$

$$\textcircled{1} \quad \frac{P}{IR} = \frac{\cancel{IR}T}{\cancel{IR}}$$

$$(T)$$

$$\left( \frac{P}{IR} = T \right)$$

Attachments

---

Syllabus - Math I A.doc