

OCTOBER 17, 2011

WARM-UP: 6 pts

1. $-3x + 4 = -5$

a) -3

b) 3

c) $\frac{1}{3}$

d) 27

$$\begin{array}{r} -3x = -9 \\ \hline -3 \quad -3 \\ \hline x = 3 \end{array}$$

2. $-10 = -8 + \frac{m}{4}$

a) -72

b) 8

c) -8

d) -2

$$\begin{array}{l} 4 \cdot -2 = \frac{m}{4} \cdot 4 \\ -8 = m \end{array}$$

3. $18 = 6 - 4y$

a) -3

b) 6

c) -6

d) -48

$$\begin{array}{l} 12 = -4y \\ \hline -4 \quad -4 \\ \hline -3 = y \end{array}$$

GET OUR YOUR HOMEWORK FROM THURSDAY
LAVENDAR WORKSHEET #1-20

Questions??

$$3) \quad 82 = -6x - 2$$

$$\begin{array}{r} +2 \\ 84 = -6x \\ \underline{-6} \quad \underline{-6} \end{array}$$

$$-14 = x$$

$$\begin{array}{r} 14 \\ 6 \overline{) 84} \\ \underline{-6} \\ 24 \end{array}$$

$$10) \quad 2 = \frac{r}{2} + 7$$

$$\begin{array}{r} -7 \\ -7 \end{array}$$

$$2 \cdot -5 = \frac{r}{2} \cdot 2$$

$$-10 = r$$

20pts

10/17 - Solving Equations with Variables on Both Sides



Keep it balanced!!

Whatever you do to one side, you **MUST** do to the other.

Remember:

Same sign
Add and
Keep the sign

Different signs
Subtract and
Keep the sign of
the biggest #

Remember:

$+$ · $+$ = $+$
 $+$ · $-$ = $-$
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$$\begin{array}{r} 5x + 4 = 2x + 8 \\ -2x \quad -2x \\ \hline 3x + 4 = 8 \\ -4 \quad -4 \\ \hline 3x = 4 \\ \frac{3x}{3} = \frac{4}{3} \\ x = 1\frac{1}{3} \end{array}$$

Solve the equation:

$$\begin{array}{r} -3n + 6 = -8n + 21 \\ +8n \qquad \qquad +8n \\ \hline 5n + 6 = 21 \\ -6 \qquad \qquad -6 \\ \hline 5n = 15 \\ \frac{5n}{5} = \frac{15}{5} \\ n = 3 \end{array}$$

Steps:

1. Move variable to one side by add/subtract the whole term from both sides
2. Undo Add/subtract
 - Opposite operation
 - Both sides
3. Undo Multiply
 - Divide on both sides

Solve the equations:

$$\begin{aligned} 2a - 7 &= -23 - 6a \\ +6a & \quad +6a \\ 8a - 7 &= -23 \\ +7 & \quad +7 \\ \frac{8a}{8} &= \frac{-16}{8} \\ a &= -2 \end{aligned}$$

$$\begin{aligned} -8 + 2k &= 16 - 4k \\ +4k & \quad +4k \\ -8 + 6k &= 16 \\ +8 & \quad +8 \\ \frac{6k}{6} &= \frac{24}{6} \\ k &= 4 \end{aligned}$$

$$\begin{aligned} 15 - 4y &= 3y - 6 \\ -3y & \quad -3y \\ 15 - 7y &= -6 \\ -15 & \quad -15 \\ \frac{-7y}{-7} &= \frac{-21}{-7} \\ y &= 3 \end{aligned}$$

HOMework:

LIME WORKSHEET

#1-24 ALL

DUE TUESDAY (TOMORROW)

$$\textcircled{15} -9 + 3m = 1 + \underline{4m} - \underline{3m}$$
$$-9 + 3m = 1 + m$$

$$\textcircled{24} \underline{-11} + \underline{6} - \underline{6m} - \underline{8m} = \underline{-6m} - \underline{7m}$$
$$-5 - 14m = -13m$$
$$\quad +14m \quad +14m$$
$$-5 = m$$