Warmup $11 /\left(\right.$ Solution of $\left.\frac{x+2}{5}=2\right)$

1) Solve and check: $3(x-4)=x+8$
***Did you check your homework answers? If not, go back and do that now.***

2 through 7 will be on the next few slides!!!


## Which step is right?

$$
8 x+2 x=50
$$

$$
\begin{array}{cc}
8 x+2 x=60 & 8 x+2 x=60 \\
-2 x-2 x & 10 x=60 \\
\hline 6 x=60 &
\end{array}
$$



# Which step is right? $4 x-9=x-12$ 

$$
\begin{array}{ll}
4 x-9=x-12 & 4 x-9=x-12 \\
-x+x
\end{array} \quad \begin{aligned}
& +x+x \\
& \hline 3 x-9=-12
\end{aligned} \quad 5 x-9=-12
$$



## B

# Which step is right? $-4(x-10)=36$ 

$$
\begin{aligned}
& \text { A. }-4 x-40=36 \\
& \text { B. }-4 x+40=36 \\
& \text { C. }-4 x-10=36
\end{aligned}
$$

$$
\begin{gathered}
\text { Which step is right? } \\
-14+4 x=6 x+7 \\
-14+4 x=6 x+7 \\
\frac{-4 x-4 x}{-14} \begin{aligned}
&-2 x+7-14+4 x=6 x+7 \\
&-14=10 x+7 \\
&-14
\end{aligned}
\end{gathered}
$$

## B

## Which step is right?

## $10+2(3 x-4)=20$

(10) $+2(3 x-4)=20$
$10+2(3 x-4)=20$

$$
\begin{gathered}
12(3 x-4)=20 \\
36 x-48=20
\end{gathered}
$$

$$
\text { (10) }+6 x-8)=20
$$

$$
6 x+2=20
$$

A

## Which steps are right?

$$
-3 x+14=10 x+6-8 x
$$

$$
\begin{aligned}
& -3 x+14=10 x+6-8 x \\
& +8 x \\
& +8 x \\
& -3 x+14=10 x+6-8 x \\
& +8 x \quad+8 x \\
& \text { B }-3 x+14=18 x+6 \\
& -3 x+14=10 x+6-8 x \\
& -3 x+14=10 x+6-8 x \\
& 7 x+14=6-8 x \\
& \text { A } 5 x+14=10 x+6 \\
& \text { B }-3 x+14=18 x+6 \\
& -3 x+14=10 x+6-8 x \\
& \text { C } 7 x+14=6-8 x
\end{aligned}
$$

$$
\text { p. } 157 \text { (1-2) }
$$

- ***Just show me the grade. You will need to keep this page because we will have more homework on it next week.***

Both correct, work showed, both

1. $\mathbf{k}=-9$ answers checked $=100$
2. $a=-14$

One wrong, minor mistake, both answers checked $=93$

Both correct, did not check answers $=8$

One wrong, did not check answers $=75$

## QUIZ TOMORROW:

- 2-step equations
- Equations with variables on both sides
- Combining Like Terms
- Distributive Property
- Equations with fractions
- Checking your solution


## Don't forget:

- The retake deadline for the Linear Quiz (the one with tasks) is one week from today - Wed, 11/15
- To be eligible, you must do quiz corrections using the blue sheet and complete the extra practice.
- It is pretty hard to pass the class if you have quiz grades below ~60\%!


## Whiteboards!

Solve:

$$
\begin{gathered}
10(3 y-2)-20 y=70 \\
30 y-20-20 y=70 \\
10 y-20=70 \\
\frac{10 y+20}{10 y}=\frac{20}{10}
\end{gathered}
$$



$$
\begin{aligned}
& 15\left(\frac{2}{5} x+1\right)=6\left(\frac{2}{3} x+5\right) \\
& 6 x+15=4 x+30 \\
& \frac{-4 x}{2 x+15}=30 \\
& \frac{-15}{25}=\frac{15}{2}=\frac{15}{2} x=\frac{15}{2} \text { or } 7 \frac{1}{2} \text { or } 7.5
\end{aligned}
$$

Solve:

$$
\begin{gathered}
10-4(2 x-9)=30 \\
(10)-8 x+36)=36 \\
46-8 x=30 \\
\frac{-46}{\frac{-8 x}{-8}-46} \\
\frac{-16}{-8}
\end{gathered}
$$

Solve:

$$
\begin{aligned}
& 5 \cdot(-x+8)=\frac{x}{5} \cdot 5 \\
&-5 x+40=x \\
&+5 x+5 x \\
& \frac{40}{6}=\frac{6 x}{6} \\
& \frac{40}{6}=x \\
& x=\frac{20}{3} \text { or } 6 \frac{2}{3} \text { or } 6 . \overline{6}
\end{aligned}
$$

## Word Problems

- For each problem:

1) Define a variable.
2) Write an equation representing the situation.
3) Solve the equation and describe the meaning of your solution.

- Meigs' Mathletes need money to travel to a competition. They have raised $\$ 560$. They need to raise a total of $\$ 1680$. Write and solve an equation to find how much more they need.

1) $m=$ amount of money they need
2) $m+560=1680$
3) $m=1320$

They need \$1320 more.


1) Define a variable.
2) Write an equation representing the situation.
3) Solve the equation and describe the meaning of your solution.

## Homework:

- Study for the quiz!!!

