## WARMUP 11/(THE SOLUTION TO 4X + $6=42$ )

1. Draw a bar diagram to represent the equation $5 x+3=2 x+15$. Then use your diagram to show the solution of the equation (by circling things, crossing things out, etc.)
2. Now solve the equation $5 x+3=2 x+15$ the "old-fashioned" way - by showing the equation steps.


## Table of Contents

p. 1 Converting Fractions and Decimals (1.1)
p. 2 Roots (1.8 \& 1.9)
p. 3 Solving $x^{2}$ and $x^{3}$ Equations (1.8)
p. 4 Rational vs. Irrational (1.1)
p. $5 \quad$ What is a function?
p. 6 Function Notation: $f(x)$
p. 7 Linear vs. Nonlinear Functions
p. 8 Constant Rate of Change
p. 9 Slope
p. 10 Graphing Linear Functions - Looking for Patterns
p. 11 Slope-Intercept Form
p. 12 Linear/Nonlinear Tables and Proportional Relationships
p. 13 Slope-Intercept Story Problems
p. $14 \quad 1$ and 2-Step Equations
p. 15 Equations w/ Variables on Both Sides

Objective:
Solve equations with variables on both sides
Understand the difference with when they're on the same side and when they're not

## $\underline{\mathbf{2}}$ variable terms on the SAME SIDE:

"Combine like terms

2 variable terms on OPPOSITE SIDES:
""Get rid" of one of them: add or subtract the x's on both sides the same way you do with regular numbers

## IF YOU KEEP STRUGGLING WITH THESE...

I am always going to go back to the picture. The pictures really help explain why you solve these the way you do!

WHITEBOARDS

$$
3 x+2 x=45
$$

$$
x=9
$$

Early finishers: Check your answer!

## WHITEBOARDS

$$
4 x=2 x+18
$$

$$
x=9
$$

Early finishers: Check your answer!

WHITEBOARDS

# $6 x-2 x=88$ 

$$
x=22
$$

Early finishers: Check your answer!

$$
8 x+4=2 x+28
$$

$$
x=4
$$

Early finishers: Check your answer!

WHITEBOARDS

$$
-3 x+16=x+20
$$

$$
x=-1
$$

Early finishers: Check your answer!

## WHITEBOARDS

## $2 x+9+5 x+8=24$

$$
x=1
$$

Early finishers: Check your answer!

$$
5 x-8=x+5
$$

$$
x=\frac{13}{4} \text { or } 3.25
$$

Early finishers: Check your answer!

WHITEBOARDS

$$
-2 x+10=-8 x-20
$$

$$
x=-5
$$

Early finishers: Check your answer!

## WHITEBOARDS

$$
\begin{gathered}
2 x+7=5 x+35 \\
x=-\frac{28}{3} \text { or }-9 \frac{1}{3}
\end{gathered}
$$

Early finishers: Check your answer!

## SOME FOR YOUR NOTES:

## SOLVE AND CHECK:

$-3 x+31=2 x+6$

## SOME FOR YOUR NOTES...

## SOLVE

$$
5 x+10-3 x=12-4 x-44
$$

FRACTIONS?!?!?
SOLVE

$$
-32+\frac{2}{3} x=\frac{7}{3} x+3
$$

## WHITEBOARDS

$$
\begin{gathered}
4 x+4=x-11 \\
x=-5
\end{gathered}
$$

Early finishers: Check your answer!

## WHITEBOARDS

$$
8 x+7-5 x=11+x
$$

$$
x=2
$$

Early finishers: Check your answer!

## WHITEBOARDS

$$
\begin{gathered}
-x-11=-3 x+7 \\
x=9
\end{gathered}
$$

Early finishers: Check your answer!

## WHITEBOARDS

$$
\begin{gathered}
15-\frac{1}{6} x=\frac{1}{6} x-1 \\
x=48
\end{gathered}
$$

Early finishers: Check your answer!

## HOMEWORK (DUE TUESDAY)

Big Yellow Equations Worksheet

I will also extend the ALEKS deadline by one day. If you do your ALEKS on Monday, it will not be counted late.

