DO NOW:

Worksheet is titled "How much do you know about Solving Equations"

<u>Instructional</u> material:

- ✓ Students will watch a short video clip from the website: www.brainpop.com ~ "Solving twostep equations". After the video clip is over students will have the opportunity to go back over the worksheet to fix any of their answers that they think they answered wrong.
- ✓ Go over the worksheet & answer any questions as a class.
- ✓ Do the backside of the worksheet titled "Mixed review of Solving equations" as a class.
- ✓ If time remains complete some more practice problems, 6 independent practice questions and then review as a class. Then 5 independent practice questions and then graded by a classmate.
- ✓ Don' forget to check your answers!

1)
$$x + 3 = 8$$

$$(2)$$
 5x - 2 = 13

$$3) 4x + 5 = x - 4$$

2)
$$5x - 2 = 13$$
 3) $4x + 5 = x - 4$ 4) $7y + 5 - 3y + 1 = 2y + 2$

5)
$$2x + \frac{1}{3} = 2$$

6)
$$-72 + x = -40$$

$$\neq 9x + \frac{1}{2}x = 38$$

6)
$$-72 + x = -40$$
 \neq $9x + \frac{1}{2}x = 38$ 8) $4y + 2y - 76 = 3y + 11$

9)
$$\frac{h}{13} = 0$$

10)
$$51-x=-133$$
 11) $3x+5x=48$ 12) $-25a=-200$

11)
$$3x + 5x = 48$$

12)
$$-25a = -200$$

"How much do you Know About Solving Equations?"

1) Which of these is a two - step equation?

A)
$$x + 9 = 21$$

B)
$$x = 11$$

c)
$$2x + 9 = 21$$

2) Which of these is a one-step equation?

A)
$$x + 9 = 21$$

B)
$$x = 11$$

c)
$$2x + 9 = 21$$

- 3) To solve 2x + 9 = 21 what is the first step?
 - A) Divide each side by 2
 - B) Subtracting 9 from each side
 - C) Dividing each side by x
- 4) True/False A two step equation is solved in two operations; therefore a four-step equation is solved in four operations.
- 5) What is the solution of 4 + 2x = 4?

A)
$$x = -4$$
 B) $x = 8$ C) $x = 0$

$$\mathbb{B}) \times = 8$$

$$c) x = c$$

- 6) True/False you could start by dividing by 4 to solve 4x + 5 = 25 but its easier to subtract 5 first.
- 7) What two operations are needed to solve 4 + 2x = 16?
 - a. Subtraction & division
 - b. Addition & subtraction
 - c. Multiplication & subtraction
- 8) True/False in a two-step equation you should take care of multiplication and division before addition and subtraction.
- 9) What two operations are needed to solve 2x 4 = 16?
 - a. Addition & division
 - b. Addition & subtraction
 - c. Multiplication & subtraction

Mixed Review of Solving Equations

One Step Equations:

1)
$$x + 7 = 8$$

$$(2) x-3=41$$

$$3) -3x = 4$$

1)
$$x+7=8$$
 2) $x-3=41$ 3) $-3x=48$ 4) $\frac{x}{4}=-45$ 5) $-x=6$

$$5) -x = 6$$

Two Step Equations

6)
$$3x + 5 = 4$$

$$\neq$$
) 8 – 2 x = 30

$$(2) 2x + 6x = 48$$

6)
$$3x+5=4$$
 7) $8-2x=30$ 8) $2x+6x=48$ 9) $6x+5-2x=-19$

Variables on Both Sides:

10)
$$4x = 3x + 5$$

11)
$$3x + 2 = 2x - 6$$

12)
$$6x+5x-4=2x-8$$

Parenthesis:

13)
$$3(x+5) = 8x$$

$$(14)-2(x+7)=9x$$

15)
$$9(3+x) = 4(3+x)$$

Mixed Practice

Solve for the variable and check your answers.

1)
$$\frac{b}{-5} = 11$$

$$(2) 5x = 9x - 16$$

3)
$$18n+12=27n+3$$

4)
$$5(x+7) = 6(x-5)$$

5)
$$4(3-u)+u=22+2u$$

5)
$$4(3-u)+u=22+2u$$
 6) $5c-4-2c+1=8c+2$