Do Now:

1.) Complete using <, >, or =.

2.) Simplify. 10(x-9)-5(x-2)

$$10(x) - 10(9) + (-5)(x) - (-5)(2)$$

 $10x - 90065x) = (-5)(2)$
 $10x - 9005x = (-5)(2)$
 $(-5)(2)$

Oct 4-7:24 AM

3.1 Solving Equations Using Addition or Subtraction

7.NS 7.EE

- SWBAT solve equations using addition or subtraction.
- SWBAT write a verbal sentence as an equation.
- SWBAT represent situations using algebraic symbols; analyze situations using algebraic symbols.
- Calculators: No

Oct 3-10:58 AM

Solving Equations

(Positive)

Goal: Your goal is to always get the <u>variable</u> alone on one side of the equation. The value on the other side tells you the solution to the equation.

How do we get the variable alone?

Use **Inverse Operations** - operations that <u>undo/reverse</u> each other, such as addition and subtraction, or multiplication and division.

Subtraction Property of Equality

Subtracting the same number from each side of an equation produces an equivalent $(\leq ama)$ equation.

Ex:
$$x + 3 = 5$$

If
$$x + 3 = 5$$
, then $x + 3 - 3 = 5 - 3$

Oct 14-11:06 AM Oct 4-7:27 AM

Solve the equation. (variable alone)

$$3 = x + 9$$

$$+ 3 = x + 9$$

$$- 9$$

Solve the equation.

$$24 + z = -14$$

+24+2=-14 -24 (7=-38)

Oct 14-7:21 AM

Solve the equation.

1.
$$k + 22 = -10$$
 $k = -32$

$$2 + 17 = 24 = 7$$

2.
$$w + 17 = 24$$
 $w = 7$
3. $-10 = 3 + y$ $y = -13$

Oct 4-7:30 AM

Addition Property of Equality

Adding the same number from each side of an equation produces an equivalent equation.

Ex:
$$x - 3 = 5$$

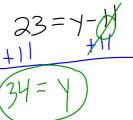
If
$$x - 3 = 5$$
, then

If
$$x - 3 = 5$$
, then $x - 3 + 3 = 5 + 3$

Oct 4-7:27 AM

Solve the equation.

$$23 = y - 11$$



Oct 14-8:55 AM

Solve the equation.

$$13 = c + (-4.5)$$

$$13 = C + (-4.5)$$

$$13 = C - 4.5$$

$$+ 4.5 + 4.5$$

$$17.5 = C$$

Oct 14-7:23 AM

Solve the equation.

$$-6.4 + z = 2$$

$$\begin{array}{c}
-6.4 + 2 = 2 \\
+6.4 + 6.4 \\
\hline
(2 = 8.4)
\end{array}$$

Solve the equation.

2.
$$-62 = m - 15$$

3.
$$-6.4 + y = 13.4$$
 $y = 9.8$ $y = 9.8$

Tell whether the equation correctly represents the real-life problem. If not, correct the equation.

1. At 62 inches tall, you are 5 inches taller than your sister. How tall is your sister?

Equation: 62 = s + 5

on:
$$62 = 8 + 5$$

my Height = My Sister + 5 inches

2. The mean temperature for February 4 in Chicago is 3°F below the mean temperature of 29°F for all of February in Chicago. What is the mean temperature for February 4?

Equation: t - 3 = 29

Oct 4-7:46 AM

Exit Pass 3.1

- 1) x + 6 = 4 5) -12 + b = -49



- 2) 8 + x = 3 6) -8 = y + (-5)
- 3) 5 = d + 1 7) -30 + p = 42
- 4) c + (-4) = -5 8) 98 = x 14

Oct 4-9:01 AM

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the workbook.

Workbook pg. 31 #1-15



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Reflection of Today's Lesson

3.1 Solving Equations **Using Addition or Subtraction**

7.NS 7.EE

- SWBAT solve equations using addition or subtraction.
- SWBAT write a verbal sentence as an equation.
- SWBAT represent situations using algebraic symbols; analyze situations using algebraic symbols.

Oct 3-11:03 AM Oct 14-7:33 AM

<u>Homework</u>

pg. 111 #6-24 evens, #30-35 all

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