Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Math 7

Chapter 4 – Expressions and Equations Notes #4

 ONE-STEP EQUATIONS

In algebra, we use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to represent missing values.

Look at how the variable was used below:

Expression: 4x + 2 Equation: 4x + 2 = 6

What is the difference between an expression and an equation?

* An expression is a \_\_\_\_\_\_\_\_\_\_. An expression is \_\_\_\_\_\_\_\_\_\_\_.
* An equation is a \_\_\_\_\_\_\_\_\_\_\_\_\_ with an \_\_\_\_\_\_\_ sign. An equation can be \_\_\_\_\_\_\_\_\_.

Solving One-Step Equations (BASICS):

1) In order to solve an equation, we need to \_\_\_\_\_\_\_\_\_\_\_\_\_ the variable,

or in other words, get the variable \_\_\_\_\_\_\_\_\_\_\_\_\_.

2) We do this by looking at the operation next to the variable, and doing the \_\_\_\_\_\_\_\_\_\_\_\_\_, or \_\_\_\_\_\_\_\_\_\_\_\_\_ operation!

We must UNDO the given operation in order to go backwards and figure out what the variable is equal to.

Inverse Operations:

 The inverse of addition is \_\_\_\_\_\_\_\_\_\_\_\_\_

 The inverse of subtraction is \_\_\_\_\_\_\_\_\_\_\_\_\_

 The inverse of multiplication is \_\_\_\_\_\_\_\_\_\_\_\_\_

 The inverse of division is \_\_\_\_\_\_\_\_\_\_\_\_\_

Solve showing all steps. APPLY THE INVERSE OPERATIONS ON BOTH SIDES OF THE EQUAL SIGN.

1) x + 5 = 10

2) A number x minus 3 is 21

3) 4x = 20

4) 

5) x - 5 = -15

6) The temperature outside increased two degrees during the day and is now at a high of -10°. What was the temperature this morning?

7) 49 = -7x

8) -20 = y – 9

11) $\frac{r}{-4}=7$

12) m + 5 = -10

13) -2 = x ÷ (-9)

YOUR TURN:

14) r + 9 = 18

15) x – 1 = -14

16) The product of a number and negative four is sixteen