Algebra Review #15 *SHOW HOW YOU SOLVED EACH PROBLEM*

NAME _____

1. Fill in the properties that justify each step:

7x + 9 = 10x - 7	Given
9 = 3x – 7	
9 + 7 = 3x – 7 + 7	
9 + 7 = 3x + 0	
16 = 3x + 0	
16 = 3x	
$5\frac{1}{3} = x$	
$x = 5\frac{1}{3}$	

2. Solve using the order of operations. Write your final answer as a fraction.

If x = -1 and y = $\frac{1}{6}$, then:

$$5p - 6y$$

3. Tell whether the equation has one has one, none, or infinite solutions:

$$4 - (p + 3) = -4p + 3$$

4. Roger pays a certain amount every month for TV service. He receives a coupon for $45 off his bill for the year. If Roger pays $622.56 this year, how much does he normally pay each month for TV?

5. Solve the following equation:

$$\frac{7}{10} = \frac{7}{2}(x + 4)$$

6.
Name the properties in each situation.

If $EF = GH$ and $GH = JK$, then $EF = JK$
If $\frac{1}{2}x - (9 + 2x) = 4y$ then $4y = \frac{1}{2}x - (9 + 2x)$

7. What is the value of the following:

$$\sqrt{14} \cdot 2\sqrt{21}$$

8. Simplify the radical.

$$\sqrt[3]{1296}$$

9. Solve for variable r:

$$P = \frac{4 - r}{2g}$$

10. Solve for variable r

$$r(5x) = st$$