

Algebra Review #14 SHOW HOW YOU SOLVED EACH PROBLEM

NAME _____

1. Fill in the properties that justify each step:

$4x - (9 + x) = 5x + 3x$	Given
$4x - (9 + x) = 8x$	
$4x - 9 - x = 8x$	
$4x - x - 9 = 8x$	
$3x - 9 = 8x$	
$-9 = 5x$	
$\frac{-9}{5} = x$	
$x = \frac{-9}{5}$	

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

If $p = -2$ and $r = \frac{1}{5}$, then:

$$pr(5r - p)$$

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

$$3(2y + 3) = 2y + 4 + 5 + 4y$$

4. Emily downloaded a new app. It costs \$0.99 every month to use the app. She downloaded the pro- version of the app, which costs a flat rate of \$14.99. If she has already paid \$25.88, how many months has she been using the app?

5. Solve the following equation:

$$28 - 8h = 4(9h + 6)$$

6. Name the properties in each situation.

If $x = y$, then $y = x$.

If $ST = YZ$, and $YZ = PR$, then $ST = PR$.

7. What is the value of the following:

$$4\sqrt{252} + 3\sqrt{28}$$

8. Simplify the radical.

$$\sqrt{2025p^5}$$

9. Solve for variable y:

$$ax + by = c$$

10. Solve for variable y

$$x = \frac{yz}{6}$$