Substitution Word Problems Day 2

Classwork

1. $\begin{cases} 2x + 3y = 4 \\ x = -4 \end{cases}$ Solution: _____

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2. $\begin{cases} 3x + 4y = 19 \\ y = 4x \end{cases}$ Solution:_____

3. $\begin{cases} -x - y = 8 \\ y = -5x - 20 \end{cases}$ Solution:_____

4. $\begin{cases} y = -2x - 20 \\ y = -6x + 10 \end{cases}$ Solution:_____

5. The length of a rectangle is equal to triple the width. The perimeter of the rectangle is 86 centimeters. What is the length of the rectangle?

6. The perimeter of a rectangular wooden deck is 90 feet. The deck's length is 5 less than 4 times the width. What is the width of the wooden deck?

7. A water loon starts off with 15 feet of water and increases at a rate of 3 feet per hour. Another loon starts off with 20 feet of water and increases at a rate of 4 feet per hour. When will they be the same height?

8. A pool is decreasing at a rate of 2 feet per day and initially had 10 feet of water. The neighbor's pool is 15 feet deep and is decreasing at a rate of 1 foot per day. How long will it take for the pools to have the same amount of water?

9. Kelly's age and twice Damian's age is 26. Kelly is 6 more than 3 times Damian's age. How old is Kelly?

10. Twice Jasmine's age added to three times Jose's age is 18. If Jasmine is four less than five times Jose's age how old is Jose?