Name _____ Date_____ NTI Day #7

Show all steps on your own sheet of paper.

Solving Systems by Substitution

Solve each system by substitution. Check your answer.

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

2. $\begin{cases} y = x - 4 \\ y = -x + 2 \end{cases}$

3. $\begin{cases} y = 3x + 1 \\ y = 5x - 3 \end{cases}$

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4. $\begin{cases} 2x - y = 6 \\ x + y = -3 \end{cases}$

5. $\begin{cases} 2x + y = 8 \\ y = x - 7 \end{cases}$

6. $\begin{cases} 2x + 3y = 0 \\ x + 2y = -1 \end{cases}$

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7. $\begin{cases} 3x - 2y = 7 \\ x + 3y = -5 \end{cases}$

8. $\begin{cases} -2x + y = 0 \\ 5x + 3y = -11 \end{cases}$

9. $\begin{cases} \frac{1}{2}x + \frac{1}{3}y = 5 \\ \frac{1}{4}x + y = 10 \end{cases}$

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Write a system of equations to represent the situation. Then, solve the system by substitution.

10. The length of a rectangle is 3 more than its width. The perimeter of the rectangle is 58 cm. What are the rectangle's dimensions?

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11. Carla and Benicio work in a men's clothing store. They earn commission from each suit and each pair of shoes they sell. For selling 3 suits and one pair of shoes, Carla has earned $47 in commission. For selling 7 suits and 2 pairs of shoes, Benicio has earned $107 in commission. How much do the salespeople earn for the sale of a suit? for the sale of a pair of shoes?

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