

Name _____

Date _____

Solving systems of equations with any method.

Remember: If a variable is alone, use substitution.

If the same variable has the SAME or a multiple coefficient use elimination.

1.
$$\begin{cases} y = 11x - 6 \\ y = -6x + 11 \end{cases}$$

- a. (-1,5); Yellow b. (1,7); Blue
c. (5,1); Green d. (1,5); Pink

2.
$$\begin{cases} y = 3x - 8 \\ y = -9x + 4 \end{cases}$$

- a. (-5,1); Red b. (-1,-5); Purple
c. (1,-3); Pink d. (1,-5); Blue

3.
$$\begin{cases} 3r + 3s = 9 \\ 3r - 6s = 18 \end{cases}$$

- a. (4,-0.5); Orange b. (5.5,3); Yellow
c. (4,-1); Tan d. (4,0); Brown

4.
$$\begin{cases} y = x + 1 \\ 8x - 4y = 0 \end{cases}$$

- a. (1,2); Yellow b. (0,1); Blue
c. (2,1); Green d. (-1,0); Pink

5.
$$\begin{cases} -9 = x - 3y \\ -2x + 6 = 6y \end{cases}$$

- a. (3,4); Yellow b. infinitely many solutions; Purple
c. (-9,0); Blue d. (-3,2); Black

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6.
$$\begin{cases} 6a + 6b = 12 \\ 6a - 5b = 12 \end{cases}$$

a. (1,0); Tan

b. (2,0); Brown

c. (3,-0.5); Yellow

d. (2,0.25); Orange

7.
$$\begin{cases} 4p + 4q = 4 \\ 4p - 4q = 28 \end{cases}$$

a. (5,-3); Red

b. (2.75,4); Orange

c. (4,-3); Pink

d. (4,-1.5); Black

8.
$$\begin{cases} -2x - 10y = 10 \\ -3x + 10y = -10 \end{cases}$$

a. (0,1); Red

b. (20,5); White

c. (-20,-5); Blue

d. (0,-1); Pink

9.
$$\begin{cases} -4x + 2y = -2 \\ 4x + 6y = 10 \end{cases}$$

a. (-2,3); Pink

b. (1,1); Blue

c. (-1,-1); Red

d. (2,-3); Purple

10. The cost of 3 large candles and 5 small candles is \$6.40/ The cost of 4 large candles and 6 small candles is \$7.50. Which pair of equations can be used to determine, t, the cost of a large candle and s the cost of a small candle?

a.
$$\begin{cases} 3t + 5s = 6.4 \\ 4t + 6s = 7.5 \end{cases}; \text{Blue}$$

b.
$$\begin{cases} t + s = 6.4 \\ 4t + 6s = 7.5 \end{cases}; \text{Black}$$

c.
$$\begin{cases} 3t + 5s = 6.4 \\ t + s = 7.5 \end{cases}; \text{Green}$$

d.
$$\begin{cases} 5t + 3s = 6.4 \\ 6t + 4s = 7.5 \end{cases}; \text{Yellow}$$