

Name: _____

Period: _____ Date: _____

Solving Systems of Equations by Linear Combination **Answers****Section I. Solve the system of linear equations by using linear combination**

1.
$$\begin{aligned} 2x - y &= 10 \\ x + y &= -4 \end{aligned}$$

 $(2, -6)$

2.
$$\begin{aligned} -3x + 2y &= -10 \\ 3x + 5y &= -4 \end{aligned}$$

 $(2, -2)$

3.
$$\begin{aligned} 2x - 3y &= -1 \\ -4x + y &= 7 \end{aligned}$$

 $(-2, -1)$

4.
$$\begin{aligned} 2x + y &= 7 \\ x - 2y &= 1 \end{aligned}$$

 $(3, 1)$

5.
$$\begin{aligned} 4x - 2y &= 8 \\ 2x - y &= 4 \end{aligned}$$

infinite solutions

6.
$$\begin{aligned} 4x - 2y &= 24 \\ 2x - y &= 17 \end{aligned}$$

no solutions

7.
$$\begin{aligned} 4x + 3y &= 1 \\ x - 4y &= -14 \end{aligned}$$

 $(-2, 3)$

8.
$$\begin{aligned} 2x + 5y &= 7 \\ -4x - 10y &= 2 \end{aligned}$$

no solutions

9. $x = -3$
 $2x - 5y = -11$

$(-3, 1)$

10. $2x + 4y = 18$
 $3x - 6y = 3$

$(5, 2)$

11. $3x + 4y = 20$
 $7x - 2y = -10$

$(0, 5)$

12. $\frac{1}{4}x + 2y = 5$
 $2x - y = 6$

$(4, 2)$

13. $8x + 3y = -27$
 $-6x + 9y = 9$

$(-3, -1)$

14. $4x + 3y = 1$
 $-2x + 9y = -4$

$(\frac{1}{2}, -\frac{1}{3})$

15. $2x + 3y = 5$
 $3x + 2y = 0$

$(-2, 3)$

16. $3x + 7y = -8$
 $5x + 8y = -6$

$(2, -2)$