



Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Algebra 1 – Unit 5 – Systems of Equations (Challenge)

$$\begin{aligned}1. \quad 5x + 7y &= 13 \\3x - 3y &= -21\end{aligned}$$

$$\begin{aligned}2. \quad 7x + 6y &= 43 \\5x - 3y &= -13\end{aligned}$$

$$\begin{aligned}3. \quad 5x + 8y &= -56 \\6x + 10y &= -69\end{aligned}$$

$$\begin{aligned}4. \quad 6x + 3y &= -2 \\4x - 12y &= -22\end{aligned}$$

$$\begin{aligned}5. \quad 11x + 6y &= -76 \\3x + 9y &= -6\end{aligned}$$

$$\begin{aligned}6. \quad 7x + 4y &= -20 \\12x + 6y &= -33\end{aligned}$$

$$\begin{aligned}7. \quad 3x + 3y &= 23 \\6x - 8y &= 9\end{aligned}$$

$$\begin{aligned}8. \quad 10x + 10y &= -10 \\5x - 8y &= -31\end{aligned}$$



# Algebra 1 – Unit 5 – Systems of Equations (Challenge) – Answer Key

1.  $5x + 7y = 13$   
 $3x - 3y = -21$   
(-3, 4)

2.  $7x + 6y = 43$   
 $5x - 3y = -13$   
(1, 6)

3.  $5x + 8y = -56$   
 $6x + 10y = -69$   
(-4.00, -4.50)

4.  $6x + 3y = -2$   
 $4x - 12y = -22$   
(-1.07, 1.48)

5.  $11x + 6y = -76$   
 $3x + 9y = -6$   
(-8, 2)

6.  $7x + 4y = -20$   
 $12x + 6y = -33$   
(-2.00, -1.50)

7.  $3x + 3y = 23$   
 $6x - 8y = 9$   
(5.02, 2.64)

8.  $10x + 10y = -10$   
 $5x - 8y = -31$   
(-3, 2)