

Name: _____ Date: _____

Solving Systems of Equations by Elimination Homework

Solve each of the following using the method of elimination:

1.
$$\begin{aligned} 2x + y &= 11 \\ x + y &= 9 \end{aligned}$$

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

3.
$$\begin{aligned} 3x + y &= 1 \\ 2x + 3y &= -11 \end{aligned}$$

4.
$$\begin{aligned} 2x + 4y &= 7 \\ 5x - y &= 1 \end{aligned}$$

5.
$$\begin{aligned} 2x + 3.5y &= 1 \\ 5x + 3y &= -9 \end{aligned}$$

6.
$$\begin{aligned} 3x + 2y &= 6 \\ 2x - 3y &= 17 \end{aligned}$$

Solve the following system using elimination. Explain each of your steps (Work & reason)

7. $2x + 5y = -2$
 $5x - 2y = 24$

Find all the errors then correct the problem:

8. $5x + 8y = 1$
 $-2x + 8y = -6$

~~$5x + 8y = 1$~~
 ~~$-2x + 8y = -6$~~

$\frac{7x}{7} = \frac{7}{7}$

$x = 1$

$-2(1) + 8y = -6$

$-2 + 8y = -6$

$8y = -8$

$y = -1$

$(1, -1)$

9. $3x - 4y = -5$
 $-3x - 6y = -5$

~~$3x - 4y = -5$~~
 ~~$-3x - 6y = -5$~~

$\frac{-2y}{-2} = \frac{-10}{-2}$

$y = 5$

$3x - 4(5) = -5$

$3x - 20 = -5$

$3x = 15$

$x = 5$

$(5, 5)$

Correctly simplify the following problems WITHOUT a calculator:

10. $-3(4)^2 - 7(4) + 18$ _____

11. $6(-8)^2 + 4(-8) + 13$ _____