

Topic 3.3  
Cramer's Rule  
Homework

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

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

**Find the value of each determinant.**

1.  $\begin{vmatrix} 2 & 4 \\ 3 & 5 \end{vmatrix}$

2.  $\begin{vmatrix} -7 & 13 \\ 3 & 4 \end{vmatrix}$

3.  $\begin{vmatrix} 5 & -2 \\ 8 & 10 \end{vmatrix}$

4.  $\begin{vmatrix} -4 & -6 \\ 6 & 9 \end{vmatrix}$

**Use Cramer's rule to solve each system of equations.**

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

6.  $3x - y = 8$   
 $x - y = 8$

7.  $x + 2y = 6$   
 $2x + y = 9$

8.  $1.2x + 2.5y = 4$   
 $0.8x - 1.5y = -10$

9.  $\frac{4}{3}x + \frac{1}{5}y = 3$   
 $\frac{2}{3}x - \frac{3}{5}y = 5$

10.  $\frac{2}{3}x + y = -3$   
 $y - \frac{1}{3}x = 6$