

## 8.3.D2 ~ Determinants &amp; Cramer's Rule

Past due on \_\_\_\_\_ Period \_\_\_\_\_

**SHOW ALL WORK ON A SEPARATE SHEET OF PAPER.****Find the value of each determinant.**

1) 
$$\begin{vmatrix} -5 & -7 & 4 \\ -1 & 1 & -5 \\ 1 & 4 & -4 \end{vmatrix}$$

2) 
$$\begin{vmatrix} 3 & 7 & -1 \\ 4 & -7 & -6 \\ -5 & -6 & 2 \end{vmatrix}$$

**Use Cramer's Rule to solve each system.**

3) 
$$\begin{aligned} -3x + 4z &= 17 \\ 4x + y - 4z &= -12 \\ -5x - 5y + 2z &= -15 \end{aligned}$$

4) 
$$\begin{aligned} 2x + y + 6z &= -15 \\ -x + 3y &= 15 \\ 2x + 6y - 3z &= 9 \end{aligned}$$

5) 
$$\begin{aligned} x - y + 2z &= 3 \\ 2x + 3y + z &= 9 \\ -x - y + 3z &= 11 \end{aligned}$$