

Q1 HW5 *All Work On Looseleaf

Date_____ Period_____

Simplify. Write "undefined" for expressions that are undefined.

$$1) \begin{bmatrix} 6 \\ 4 \\ -4 \\ -2 \end{bmatrix} - \begin{bmatrix} -5 \\ 5 \\ 4 \\ -4 \end{bmatrix}$$

$$2) \begin{bmatrix} 2 & 6 \\ 6 & -5 \\ -1 & 0 \end{bmatrix} + \begin{bmatrix} -3 & 6 \\ 0 & 5 \\ 4 & 3 \end{bmatrix}$$

$$3) -5 \begin{bmatrix} -3 & -5 \\ -6 & -6 \\ 0 & -2 \end{bmatrix}$$

$$4) 5 \begin{bmatrix} -1 \\ -5 \end{bmatrix}$$

Evaluate.

$$5) \begin{vmatrix} -5 & 2 \\ 1 & 5 \end{vmatrix}$$

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

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

$$8) \begin{vmatrix} 1 & 5 \\ 3 & -3 \end{vmatrix}$$

$$9) \begin{vmatrix} -3 & -2 \\ 4 & 0 \end{vmatrix}$$

$$10) \begin{vmatrix} 0 & 0 \\ 5 & -3 \end{vmatrix}$$

$$11) \begin{vmatrix} -1 & -1 & 0 \\ 1 & -1 & -5 \\ 5 & -3 & -1 \end{vmatrix}$$

$$12) \begin{vmatrix} 3 & 0 & 1 \\ -2 & -4 & -5 \\ 4 & -4 & 1 \end{vmatrix}$$

Graph the solution to each system of inequalities.

$$13) \begin{aligned} y &< -x + 3 \\ y &\geq \frac{3}{2}x - 2 \end{aligned}$$

$$14) \begin{aligned} y &< \frac{1}{2}x - 2 \\ y &> 2x + 1 \end{aligned}$$

$$15) \begin{aligned} 6x - y &\leq -3 \\ x - y &> 2 \end{aligned}$$

$$16) \begin{aligned} x - 3y &\leq -3 \\ 4x - 3y &\geq 6 \end{aligned}$$