

Cumulative Review 2

Date _____ Period _____

Solve each system by elimination.

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

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

3)
$$\begin{aligned} -4x - 6y &= 2 \\ -6x + 6y &= 18 \end{aligned}$$

4)
$$\begin{aligned} -8x - 8y &= 24 \\ 3x + 16y &= -22 \end{aligned}$$

5)
$$\begin{aligned} -14x + 2y &= 0 \\ -7x + 3y &= 0 \end{aligned}$$

Solve each system by substitution.

6)
$$\begin{aligned} y &= x - 1 \\ y &= 2x - 3 \end{aligned}$$

7)
$$\begin{aligned} y &= x + 5 \\ y &= 3x + 7 \end{aligned}$$

8)
$$\begin{aligned} y &= x - 8 \\ y &= -4x + 12 \end{aligned}$$

9)
$$\begin{aligned} x - 2y &= 1 \\ -2x - 7y &= -24 \end{aligned}$$

10)
$$\begin{aligned} 2x - 2y &= -14 \\ x - 5y &= -23 \end{aligned}$$

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

$$11) 2 \begin{bmatrix} 0 & 6 \\ -2 & 4 \end{bmatrix}$$

$$12) \begin{bmatrix} -3 & -1 & 5 & 5 \end{bmatrix} - \begin{bmatrix} 5 & -4 & -4 & -1 \end{bmatrix}$$

$$13) \begin{bmatrix} 0 & -1 & 0 \end{bmatrix} - \begin{bmatrix} -4 & -6 & 1 \end{bmatrix}$$

$$14) 4 \begin{bmatrix} 2 \\ 1 \end{bmatrix}$$

$$15) 5 \begin{bmatrix} 3 \\ 6 \end{bmatrix}$$

$$16) \begin{bmatrix} -6 \\ -3 \\ 4 \\ -1 \end{bmatrix} - \begin{bmatrix} 5 \\ 1 \\ 6 \\ -1 \end{bmatrix}$$

$$17) 2 \begin{bmatrix} 5 & 4 \\ -6 & -2 \\ -6 & 3 \end{bmatrix}$$

$$18) 5 \begin{bmatrix} -4 & 2 & 4 \end{bmatrix}$$

$$19) \begin{bmatrix} -5 & 4 \\ -4 & 1 \\ 6 & 3 \\ -1 & 2 \end{bmatrix} \cdot \begin{bmatrix} -4 & 4 \\ -2 & 3 \end{bmatrix}$$

$$20) \begin{bmatrix} -1 & 1 \\ -4 & -1 \end{bmatrix} \cdot \begin{bmatrix} -1 & -3 & -1 & -1 \\ -5 & 0 & -6 & -3 \end{bmatrix}$$