

## Systems of Equations: Mixed Review

**Solve each system by substitution. SHOW ALL WORK.**

$$\begin{aligned} 1) \quad & y = 4x + 20 \\ & 3x + 2y = 7 \end{aligned}$$

$$\begin{aligned} 2) \quad & -x + 4y = 19 \\ & y = -4x + 9 \end{aligned}$$

$$\begin{aligned} 3) \quad & 3x - 6y = 18 \\ & x - 8y = 6 \end{aligned}$$

$$\begin{aligned} 4) \quad & x - 2y = -15 \\ & 3x + 2y = -13 \end{aligned}$$

**Solve each system by elimination. SHOW ALL WORK.**

$$\begin{aligned} 5) \quad & -8x - y = -5 \\ & 8x - 2y = 14 \end{aligned}$$

$$\begin{aligned} 6) \quad & -5x - 7y = 2 \\ & x + 7y = -6 \end{aligned}$$

$$\begin{aligned} 7) \quad & -5x - 3y = -3 \\ & -5x - 8y = 17 \end{aligned}$$

$$\begin{aligned} 8) \quad & 7x - 10y = -11 \\ & 3x - 20y = 11 \end{aligned}$$

**Solve each system by calculator. WRITE THE FINAL MATRIX AND THE COORDINATE OF THE SOLUTION.**

$$\begin{aligned} 9) \quad & 8x + 10y = -20 \\ & 9x + 6y = 30 \end{aligned}$$

$$\begin{aligned} 10) \quad & -4x - 6y = 28 \\ & -10x - 7y = 6 \end{aligned}$$

$$\begin{aligned} 11) \quad & 10x + 2y = -14 \\ & -7x + 3y = 23 \end{aligned}$$

$$\begin{aligned} 12) \quad & 3x - 6y = 6 \\ & -8x - 4y = 4 \end{aligned}$$