

Systems of Quadratic and Linear Systems

Solve each system of equations.

$$\begin{aligned} 1) \quad & -12x^2 + 3y^2 - 73x + 3y - 111 = 0 \\ & x - 3y = -3 \end{aligned}$$

$$\begin{aligned} 2) \quad & 6x^2 + 2y^2 - 18x - y + 11 = 0 \\ & 2x - y = 1 \end{aligned}$$

$$\begin{aligned} 3) \quad & x^2 - 6y^2 + 66x - 153 = 0 \\ & 2x - y = 3 \end{aligned}$$

$$\begin{aligned} 4) \quad & x^2 + y^2 - 18x + 16 = 0 \\ & 2x + y - 3 = 0 \end{aligned}$$

$$\begin{aligned} 5) \quad & x^2 + 2y^2 - 120x + 2y + 171 = 0 \\ & 3x + y + 1 = 0 \end{aligned}$$

$$\begin{aligned} 6) \quad & -3x^2 + 2y^2 + 3x - 24y + 34 = 0 \\ & x - y + 3 = 0 \end{aligned}$$

$$\begin{aligned} 7) \quad & -3x^2 + 4y^2 + 6x + y - 71 = 0 \\ & -3x + y - 1 = 0 \end{aligned}$$

$$\begin{aligned} 8) \quad & x^2 + y^2 + 42x - 4y + 120 = 0 \\ & 2x - y = -4 \end{aligned}$$

$$\begin{aligned} 9) \quad & 3x^2 - 2y^2 + 2x - 11y - 45 = 0 \\ & x - y = 1 \end{aligned}$$

$$\begin{aligned} 10) \quad & 3x^2 + 6y^2 + 13x - y - 67 = 0 \\ & x - y = -2 \end{aligned}$$