

# 8.6 Systems of Non-Linear Equations

▼ Example 1: Solve with Substitution

$$\begin{cases} x^2 = 2y + 10 \\ 3x - y = 9 \end{cases}$$

▼ Example 2: Solve with Elimination

$$\begin{cases} x^2 = 2y + 10 \\ 3x - y = 9 \end{cases}$$

▼ Example 3A: Solve with Substitution (Traditional)

$$\begin{cases} y = x^2 + 3 \\ x^2 + y^2 = 9 \end{cases}$$

▼ Example 3B: Solve with Substitution (Non traditional)

$$\begin{cases} y = x^2 + 3 \\ x^2 + y^2 = 9 \end{cases}$$

▼ Example 4: Solve with Elimination

$$\begin{cases} y = x^2 + 3 \\ x^2 + y^2 = 9 \end{cases}$$

▼ Example 5: Solve with Substitution

$$\begin{cases} x - y = 3 \\ (x - 2)^2 + (y + 3)^2 = 4 \end{cases}$$

▼ Example 6: Solve with Elimination

$$\begin{cases} 4x^2 + y^2 = 13 \\ x^2 + y^2 = 10 \end{cases}$$