

## Solving a System of Equations by Substitution

Solve each system by substitution.

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

$$\begin{aligned} 2) \quad & 5x + 7y = 14 \\ & y = 6x + 2 \end{aligned}$$

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

$$\begin{aligned} 4) \quad & -18x + 3y = 24 \\ & y = 6x + 8 \end{aligned}$$

$$\begin{aligned} 5) \quad & y = -2 \\ & -x + 8y = -24 \end{aligned}$$

$$\begin{aligned} 6) \quad & -4x - y = -11 \\ & 2x + y = 3 \end{aligned}$$

$$\begin{aligned} 7) \quad & -5x + 3y = -1 \\ & 3x + y = 9 \end{aligned}$$

$$\begin{aligned} 8) \quad & -4x + y = -2 \\ & 12x - 3y = 5 \end{aligned}$$

## Answers to Solving a System of Equations by Substitution

- 1)  $(3, 1)$                       2)  $(0, 2)$                       3)  $(5, -7)$   
4) Infinite number of solutions    5)  $(8, -2)$                       6)  $(4, -5)$   
7)  $(2, 3)$                       8) No solution