

### 3.2a Solving Systems by Substitution

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Name \_\_\_\_\_

Date \_\_\_\_\_ Hour \_\_\_\_\_

Solve each system by substitution.

$$\begin{aligned} 1) \quad & y = 2x + 6 \\ & y = 3x + 9 \end{aligned}$$

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

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

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

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

$$\begin{aligned} 6) \quad & -4x + y = 6 \\ & -3x + 3y = -9 \end{aligned}$$

$$\begin{aligned} 7) \quad & x + 5y = 23 \\ & -5x - 4y = 11 \end{aligned}$$

$$\begin{aligned} 8) \quad & 24x + 3y = 6 \\ & 8x + y = -7 \end{aligned}$$

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Name \_\_\_\_\_

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Solve each system by substitution.

$$1) \quad y = 2x + 6$$

$$y = 3x + 9$$

$$(-3, 0)$$

$$2) \quad y = -4x - 12$$

$$y = -3x - 8$$

$$(-4, 4)$$

$$3) \quad -4x - 2y = -6$$

$$y = -2x + 3$$

Infinite number of solutions

$$4) \quad x = 2y + 5$$

$$-3x + 2y = 8$$

$$(-7, -6)$$

$$5) \quad 2x + 5y = -23$$

$$x - 2y = 2$$

$$(-4, -3)$$

$$6) \quad -4x + y = 6$$

$$-3x + 3y = -9$$

$$(-3, -6)$$

$$7) \quad x + 5y = 23$$

$$-5x - 4y = 11$$

$$(-7, 6)$$

$$8) \quad 24x + 3y = 6$$

$$8x + y = -7$$

No solution