

ALL PROBLEMS CAN BE COMPLETED ON THIS WORKSHEET

**WS 25.1 - Solving for y**

Solve each equation for y.

$$1. \quad 3x + 7y = 35$$

$$\quad -3x \quad -3x$$

$$\frac{7y}{7} = \frac{-3x + 35}{7}$$

$$y = \frac{-3}{7}x + 5$$

$$2. \quad 9y + 6x = 54$$

$$\quad -6x \quad -6x$$

$$\frac{9y}{9} = \frac{-6x + 54}{9}$$

$$y = \frac{-6}{9}x + 6 \Rightarrow y = \frac{-2}{3}x + 6$$

$$3. \quad 1x - y = 4$$

$$\quad -1x \quad -1x$$

$$\frac{-1y}{-1} = \frac{-1x + 4}{-1}$$

$$y = x - 4$$

$$4. \quad \frac{5y}{5} = \frac{2x}{5}$$

$$y = \frac{2}{5}x$$

$$5. \quad 6x - 3y = -24$$

$$\quad -6x \quad -6x$$

$$\frac{-3y}{-3} = \frac{-6x - 24}{-3}$$

$$y = 2x + 8$$

$$6. \quad -9 = 2y - 7x$$

$$\quad +7x \quad +7x$$

$$\frac{7x - 9}{2} = \frac{2y}{2}$$

$$\frac{7}{2}x - \frac{9}{2} = y \Rightarrow y = \frac{7}{2}x - \frac{9}{2}$$

$$7. \quad \frac{5y}{4} - \frac{x}{2} = \frac{2}{3}$$

$$15y - 6x = 8$$

$$\quad +6x \quad +6x$$

$$\frac{15y}{15} = \frac{6x + 8}{15}$$

$$y = \frac{6}{15}x + \frac{8}{15}$$

↓ reduce!

$$y = \frac{2}{5}x + \frac{8}{15}$$

$$8. \quad \frac{x}{5} + \frac{2y}{3} = \frac{4}{3}$$

$$3x + 10y = 20$$

$$\quad -3x \quad -3x$$

$$\frac{10y}{10} = \frac{-3x + 20}{10} \Rightarrow y = \frac{-3}{10}x + 2$$