



$$y = 4x - 9$$

$$y = 4(3) - 9$$

$$y = 12 - 9$$

$$\boxed{y = 3}$$

$$y = -2x + 5$$

$$-9 = -2(2) + 5$$

$$-9 = -4 + 5$$

$$-9 = 1x$$

$$x - 5y = -15$$

$$y - 3 = 5x - 10$$

$$3 - 3 = 5(2) - 10$$

$$0 = 10 - 10$$

$$\boxed{0 = 0} \checkmark$$

$$9 = -2(-2) + 5$$

$$9 = 4 + 5$$

$$\boxed{9 = 9} \checkmark$$

$$2 - 3 = 5(3 - 2)$$

$$-1 = 5(1)$$

$$-1 = 5x$$

$$-2 = -2x + 4$$

$$-6 = -2x$$

$$\frac{-6}{-2} = \frac{-2x}{-2}$$

$$\boxed{3 = x}$$

60 mph

2

$$y - 4 = -2(x + 3)$$

$$y - 4 = -2x - 6$$

$$y - 4 = -2(-3) - 6$$

$$y - 4 = 6 - 6$$

$$y - 4 = 0$$

$$\boxed{y = 4}$$

$$y = -3x - 4$$

$$(-2, 4)$$

$$4 = -3(-2) - 4$$

$$4 = 6 - 4$$

$$4 \neq 2$$

$$(-3, 5)$$

$$5 = -3(-3) - 4$$

$$5 = 9 - 4$$

$$\boxed{5 = 5}$$

$$y = 0.77x$$

$$-4x - y = 24$$

$$\begin{array}{r} -4x - \cancel{y} = 24 \\ + 8 + 8 \end{array}$$

$$\begin{array}{r} -\cancel{4x} = 32 \\ -\cancel{y} -4 \end{array} \quad \boxed{x = -8}$$

$$(y_2 - y_1) = m(x_2 - x_1)$$

$$(-7 - (-1)) = m(5 - 1)$$

$$-7 + 1$$

$$-6 = m(4)$$

$$\frac{-6}{4} = \frac{4m}{4}$$

$$-\frac{6}{4} = m$$

$$\boxed{-\frac{3}{2} = m}$$

$$6x + 10y = 8$$

$$\frac{10y}{10} = \frac{8 - 6x}{10}$$

$$y = \frac{8 - 6x}{10}$$

$$y = -\frac{6}{10}x + \frac{8}{10}$$

$$y = -\frac{3}{5}x + \frac{4}{5}$$

$$\boxed{m = -\frac{3}{5}}$$

$$-5x + 9y = -18$$

$$-\cancel{5(0)} + 9y = -18$$

$$\frac{9y}{9} = \frac{-18}{9}$$

$$y = -2$$

$$y\text{-int} = (0; -2)$$

$$-5x + 9y = -18$$

$$-5x + \cancel{9(0)} = -18$$

$$\frac{-5x}{-5} = \frac{-18}{-5}$$

$$x = \frac{-18}{-5} = \frac{18}{5}$$

$$x\text{-int} = \left(\frac{18}{5}, 0\right)$$

$$7x - 5 = 4y - 6$$

$$7x - 5 = 4(0) - 6$$

$$\begin{array}{r} 7x - 5 = -6 \\ +5 \quad +5 \end{array}$$

$$\frac{7x}{7} = \frac{-1}{7}$$

$$x = -\frac{1}{7}$$

$$x\text{-int} = \left(-\frac{1}{7}, 0\right)$$

$$7x - 5 = 4y - 6$$

$$7(0) - 5 = 4y - 6$$

$$\begin{array}{r} -5 = 4y - 6 \\ +6 \quad +6 \end{array}$$

$$\frac{1}{4} = \frac{4y}{4}$$

$$\frac{1}{4} = y$$

$$y\text{-int} = \left(0, \frac{1}{4}\right)$$

$$y + 1 = 3(x - 4)$$

$$y + 1 = 3x - 12$$

$$y = 3x - 13$$

$$\boxed{m = 3}$$

$$(y_2 - y_1) = m(x_2 - x_1)$$

$$(8 - 0) = m(3 - 1)$$

$$8 = m(2)$$

$$\frac{8}{2} = \frac{2m}{2}$$

$$\boxed{4 = m}$$

$$(0, 7) \quad (4, -5)$$

$$b = y - mx$$

$$(y_2 - y_1) = m(x_2 - x_1)$$

$$b = 7 - (-3)(0)$$

$$(-5 - 7) = m(4 - 0)$$

$$b = 7 - 0$$

$$\frac{-12}{4} = \frac{4m}{4}$$

$$\boxed{b = 7}$$

$$-3 = m$$

$$\boxed{y = -3x + 7}$$

$$(2, 1) \text{ and } (5, -8)$$

$$b = y - mx$$

$$(y_2 - y_1) = m(x_2 - x_1)$$

$$b = 1 - (-3)(2)$$

$$(-8 - 1) = m(5 - 2)$$

$$b = 1 - (-6)$$

$$\frac{-9}{3} = \frac{3m}{3}$$

$$b = 1 + 6$$

$$b = 7$$

$$-3 = m$$

$$\boxed{y = -3x + 7}$$

$$y = -\frac{4}{3}x$$

$$(-3, 2) \text{ and } (3, 6)$$

$$(y_2 - y_1) = m(x_2 - x_1)$$

$$6 - 2 = m(3 - (-3))$$

$$4 = m(3 + 3)$$

$$\frac{4}{6} = \frac{6m}{6}$$

$$m = \frac{2}{3}$$

$$5(y+2) = 4(x-3)$$

$$\frac{5(y+2)}{5} = \frac{4x-12}{5}$$

$$y+2 = \frac{4}{5}x - \frac{12}{5}$$

$$y = \frac{4}{5}x - \frac{12}{5} - 2$$

$$y = -2x - 21 \quad y = -2(0) - 21$$

$$0 = -2x - 21 \quad y = -21$$

$$\frac{21}{-2} = \frac{-2x}{-2}$$

$$x = -\frac{21}{2}$$

$$x\text{-int} = \left(-\frac{21}{2}, 0\right)$$

$$y\text{-int} = (0, -21)$$

$$(4, 1) \text{ and } (8, 4)$$

$$b = y - mx$$

$$(y_2 - y_1) = m(x_2 - x_1)$$

$$4 - 1 = m(8 - 4)$$

$$\frac{3}{4} = \frac{4m}{4}$$

$$m = \frac{3}{4}$$

$$(y_2 - y_1) = m(x_2 - x_1)$$

$$(1 - (-2)) = m(4 - 2)$$

$$1 + 2 \quad m(2)$$

$$\frac{3}{2} = \frac{2m}{2}$$

$$\frac{3}{2} = m$$

$$b = y - mx$$

$$b = (-2) - \frac{3}{2}(2)$$

$$b = -2 - 3$$

$$b = -5$$

$$y = mx + b$$

$$y = \frac{3}{2}x - 5$$

$$y = mx + b$$

$$y = 1.5x$$

$$y = 2x - 7 \quad (1, -5) \quad (0, -7)$$

$$y = 2(1) - 7$$

$$y = 2 - 7$$

$$y = -5$$

$$y = 2(0) - 7$$

$$y = -7$$

$$-3x + 4y = 14$$

$$(2, 5)$$

$$-3(2) + 4(5) = 14$$

$$-6 + 20 = 14$$

$$14 = 14 \checkmark$$

$$-3x + 4y = 14$$

$$(4, 6)$$

$$-3(4) + 4(6) = 14$$

$$-12 + 24 = 14$$

$$12 \neq 14$$

$$y = 4x - 9$$

$$y = 4(3) - 9$$

$$y = 12 - 9$$

$$\boxed{y = 3}$$

$$4x - 3y = 17$$

$$4x - \cancel{3(0)} = 17$$

$$\frac{4x}{4} = \frac{17}{4}$$

$$x = \frac{17}{4}$$

$$x\text{-int} = \left(\frac{17}{4}, 0\right)$$

$$4x - 3y = 17$$

$$\cancel{4(0)} - 3y = 17$$

$$\frac{-3y}{-3} = \frac{17}{-3}$$

$$y = \frac{17}{-3} = -\frac{17}{3}$$

$$y\text{-int} = \left(0, -\frac{17}{3}\right)$$