

1.3

2) $(1, 8), (4, -6)$

$$m = \frac{(-6) - (8)}{(4) - (1)} = \frac{-14}{3} = \underline{\underline{\frac{-14}{3}}}$$

4) $(185, 5600), (210, 8150)$

$$m = \frac{(8150) - (5600)}{(210) - (185)} = \frac{2550}{25} = \underline{\underline{102}}$$

use point slope formula $y - y_1 = m(x - x_1)$

6)

$$m = \frac{2}{5} \quad y\text{-int: } b = 4 \Rightarrow (0, 4)$$

$$y - (4) = \frac{2}{5}(x - (0))$$

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

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

8) $(-3, -5), m = \frac{-7}{2}$

$$y - (-5) = \frac{-7}{2}(x - (-3))$$

$$y + 5 = \frac{-7}{2}(x + 3)$$

$$y + 5 = \frac{-7}{2}x - \frac{21}{2}$$

$$y = \frac{-7}{2}x - \frac{21}{2} - 5 \Rightarrow \underline{\underline{y = \frac{-7}{2}x - \frac{31}{2}}}$$

10) $(-1, -2), (4, 3)$

$$m = \frac{(-2) - (3)}{(-1) - (4)} = \frac{-5}{-5} = 1$$

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

$$y + 2 = 1(x + 1)$$

$$y + 2 = x + 1$$

$$\underline{\underline{y = x - 1}}$$

12) $(6, 70), (16, 300)$

$$m = \frac{(300) - (70)}{(16) - (6)} = \frac{230}{10} = 23$$

$$y - (70) = 23(x - (6))$$

$$y - 70 = 23x - 138$$

$$\underline{\underline{y = 23x - 68}}$$

14) x-int: -8
 (-8, 0)

y-int: 6
 (0, 6)

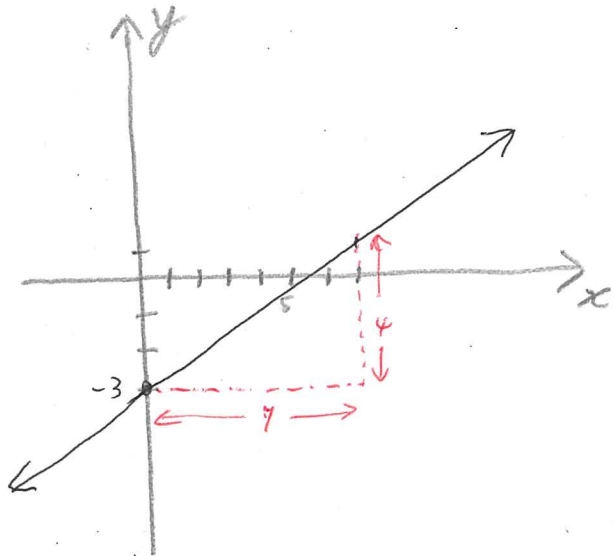
$$m = \frac{(6) - (0)}{(0) - (-8)} = \frac{6}{8} = \frac{3}{4}$$

$$y - (6) = \frac{3}{4}(x - (0))$$

$$y - 6 = \frac{3}{4}x$$

$$y = \frac{3}{4}x + 6$$

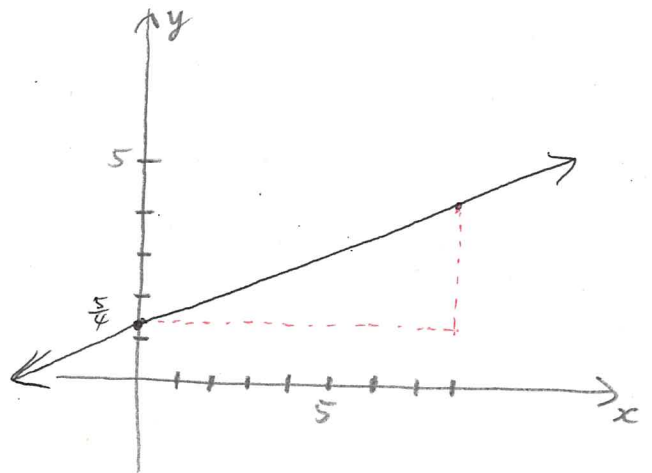
16) $m = \frac{4}{7}$ y-int: -3



18) $3x - 8y = -10$
 $+10 + 8y \quad +10 + 8y$

$$\frac{3x + 10}{8} = \frac{8y}{8}$$

$$\frac{3}{8}x + \frac{10}{8} = y \Rightarrow y = \frac{3}{8}x + \frac{5}{4}$$

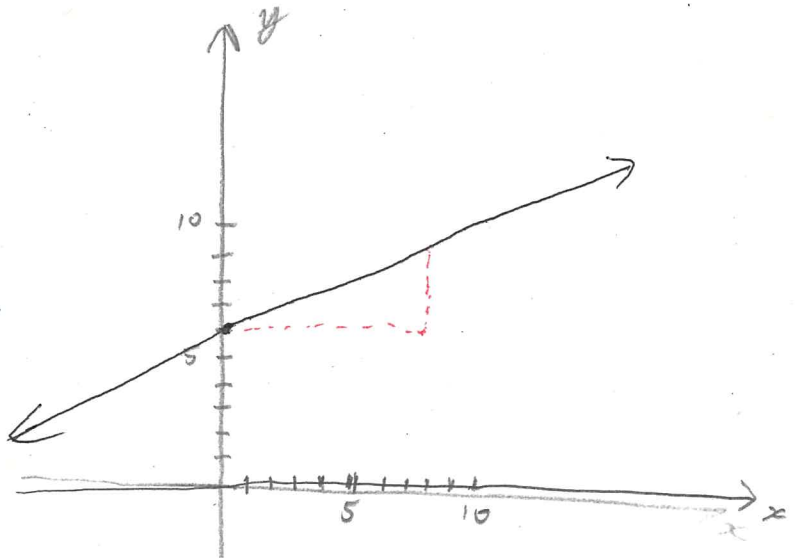


20) $8y - 3x = 48$
 $+3x \quad +3x$

$$\frac{8y}{8} = \frac{3x + 48}{8}$$

$$y = \frac{3}{8}x + \frac{48}{8}$$

$$y = \frac{3}{8}x + 6$$



$$26) \quad w(42) = 230.8$$

$$(42, 230.8)$$

$$w(74) = 819.6$$

$$(74, 819.6)$$

$$m = \frac{(819.6) - (230.8)}{(74) - (42)} = \frac{588.8}{32} = \frac{294.4}{16} = \frac{147.2}{8} = \frac{73.6}{4} = \frac{36.8}{2} = 18.4$$

$$y - (230.8) = 18.4(x - (42))$$

$$y - 230.8 = 18.4x - 772.8$$

$$y = 18.4x - 542$$

$$w(x) = 18.4x - 542$$

38) let x be amount of chairs
 y be cost

$$(100, 2200), (300, 4800)$$

$$b) \quad m = \frac{(4800) - (2200)}{(300) - (100)} = \frac{2600}{200} = 13 \Rightarrow \$13/\text{chair}$$

this represent the cost to manufacture one chair.

$$a) \quad y - (2200) = 13(x - (100))$$

$$y - 2200 = 13x - 1300$$

$$y = 13x + 900$$

$$c) \quad b = 900 \Rightarrow \$900$$

this represent a base
cost one day.

