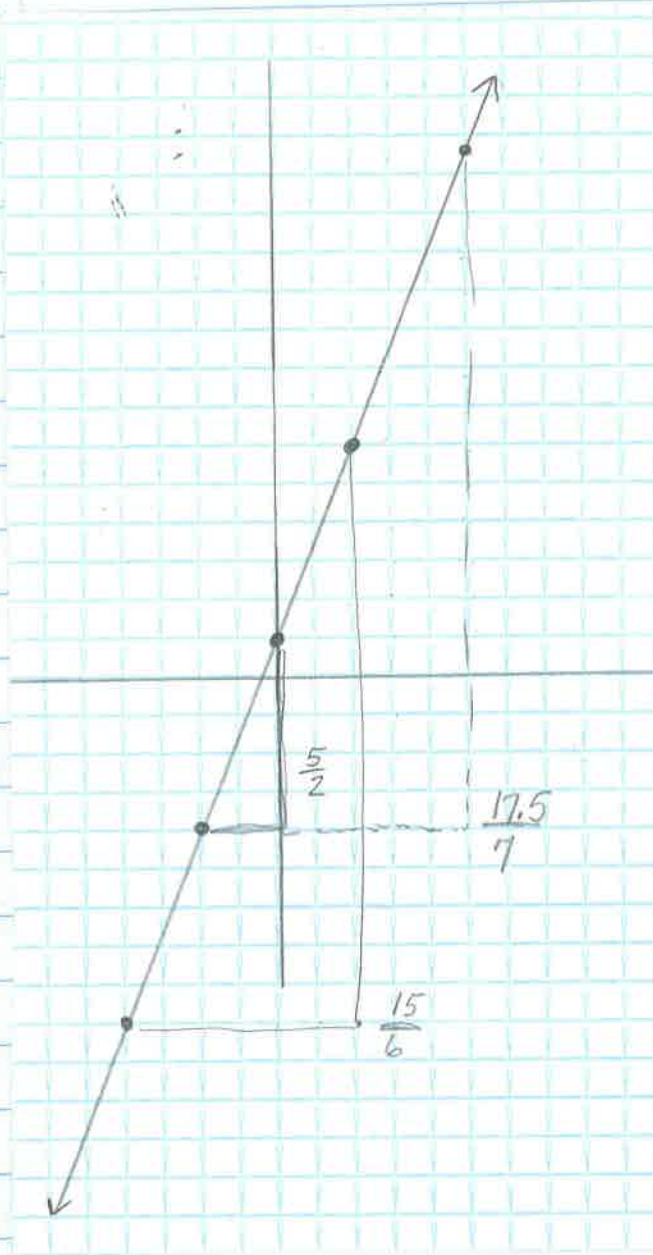


7.2.3

HWK

7-61)



7-62)

a)  $\frac{2}{3}$

b)  $\frac{3}{5}$

c)  $\frac{2}{1}$

according to the graphs in my book 😊

7-63)

a)  $10(0.02x - 0.01) = 1$

$$0.2x - 1 = 0.1$$

$$\frac{0.2x}{0.2} = \frac{1.1}{0.2}$$

$$x = 5.5$$

b)  $\frac{1}{3}x - 6 = 8$

$$\frac{1}{3}x = 8 + 6$$

$$(3) \frac{1}{3}x = 14(3)$$

$$x = 42$$

$$\begin{aligned}
 c) \quad \frac{x}{3} + 1 &= \frac{x}{4} - 1 \\
 12\left(\frac{x}{3} + 1\right) &= 12\left(\frac{x}{4} - 1\right) \\
 \frac{12}{3}x + 12 &= \frac{12}{4}x - 12 \\
 4x + 12 &= 3x - 12 \\
 -3x & \quad -3x \\
 \hline
 x + 12 &= -12 \\
 -12 & \quad -12 \\
 \hline
 x &= -24
 \end{aligned}$$

$$\begin{aligned}
 d) \quad 0.9x - 2.1 + 0.9 &= 0.2(5 - x) \\
 10(0.9x - 2.1 + 0.9) &= (1 - 0.2x) \cdot 10 \\
 9x - 21 + 9 &= 10 - 2x \\
 9x - 12 &= 10 - 2x \\
 +2x & \quad +2x \\
 \hline
 11x - 12 &= 10 \\
 +12 & \quad +12 \\
 \hline
 11x &= 22 \\
 11 & \quad 11 \\
 \hline
 x &= 2
 \end{aligned}$$

$$\begin{aligned}
 7-64) \quad 4.5 \text{ hours} &= x + v & \text{Swimming} &= x \\
 v &= 2x & \text{volleyball} &= v
 \end{aligned}$$

$$4.5 \text{ hours} = x + 2x$$

$$\frac{4.5}{3} = \frac{3x}{3}$$

$$1.5 = x$$

1.5 hours swimming

volleyball =  $2x$

$$= 2(1.5)$$

$$= 3 \text{ hours}$$

$$7-65) \text{ line a} \Rightarrow y = 2x - 2$$

$$a) \text{ line b} \Rightarrow y = 2x + 3$$

b)  $y = 2x + 1$  would lie between the 2 lines because its y-intercept is at  $(0, 1)$

c) It would travel downward but would have the same y-intercept as the line from part b.

7-66)

$$a) 2(3x - 4) = 22$$

$$6x - 8 = 22$$

$$\begin{array}{r} +8 \quad +8 \\ \hline \end{array}$$

$$\frac{6x}{6} = \frac{30}{6}$$

$$x = 5$$

$$b) 6(2x - 5) = -(x + 4)$$

$$12x - 30 = -x - 4$$

$$\begin{array}{r} +30 \quad +30 \\ \hline \end{array}$$

$$\frac{12x}{+x} = \frac{-x + 26}{+x}$$

$$\frac{13x}{13} = \frac{26}{13}$$

$$x = 2$$

$$c) 2 - (y + 2) = 3y$$

$$2 - y - 2 = 3y$$

$$\begin{array}{r} +y \quad +y \\ \hline \end{array}$$

$$0 = 4y$$

$$0 = y$$

$$d) 3 + 4(x + 1) = 159$$

$$3 + 4x + 4 = 159$$

$$4x + 7 = 159$$

$$\begin{array}{r} -7 \quad -7 \\ \hline \end{array}$$

$$\frac{4x}{4} = \frac{152}{4}$$

$$\frac{4x}{4} = \frac{152}{4}$$

$$x = 38$$