

7.2.4

Hwk

7-71)

a)  $\frac{6}{7} > \frac{5}{7}$

b)  $\frac{3}{2} = \frac{15}{10}$

c)  $\frac{12}{10} < \frac{7}{5}$   
 $\frac{6}{5} < \frac{7}{5}$

7-72)

Graph 1: positive, non-linear association, with one outlier

Graph 2: positive linear association with no outliers.

7-73)  $-\frac{3}{4}$  is correct because the line is decreasing and for every four units that the line moves right, it goes down 3 units.

7-74)  $\frac{1}{6}x + \frac{2}{3} = \frac{1}{4}x - \frac{1}{3}$

a)  $12\left(\frac{1}{6}x + \frac{2}{3}\right) = 12\left(\frac{1}{4}x - \frac{1}{3}\right)$

$$\frac{12}{6}x + \frac{24}{3} = \frac{12}{4}x - \frac{12}{3}$$

$$2x + 8 = 3x - 4$$

$$\begin{array}{r} +4 \\ \hline \end{array}$$

$$2x + 12 = 3x$$

$$\begin{array}{r} -2x \\ \hline \end{array}$$

$$12 = x$$

$$\begin{aligned}
 \text{b) } & 0.15(w+2) = 0.3 + (0.2w) \\
 & 0.15w + 0.3 = 0.3 + 0.2w \\
 & 100(0.15w + 0.3) = 100(0.3 + 0.2w) \\
 & 15w + 30 = 30 + 20w \\
 & \begin{array}{r} -15w \\ \hline 30 = 30 + 5w \\ -30 \quad -30 \\ \hline 0 = 5w \\ 0 = w \end{array}
 \end{aligned}$$

$$\begin{aligned}
 \text{c) } & \frac{8x}{6} = \frac{72}{54} \quad \rightarrow \quad \frac{4x}{3} = \frac{8}{6} \\
 & \downarrow \text{simplify} \\
 & \frac{24x}{24} = \frac{24}{24} \\
 & x = 1
 \end{aligned}$$

$$\begin{aligned}
 \text{d) } & 3(2x-7) = 5x+17+x \\
 & 6x-21 = 6x+17 \\
 & \begin{array}{r} +21 \quad \quad +21 \\ \hline 6x = 6x+38 \\ -6x \quad -6x \\ \hline 0 \neq 38 \\ \text{no solution} \end{array}
 \end{aligned}$$

7-75) 6ft sub weighs 8 lbs.  $\frac{6\text{ft}}{8\text{lb}} = \frac{1\text{ft}}{1.33\text{lbs}}$

a) 0 lbs.

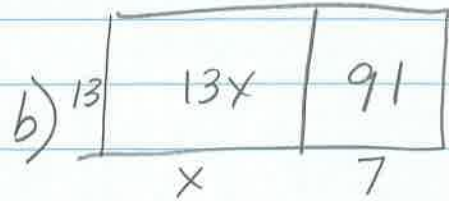


c) 1ft =  $\frac{4}{3}$  lb or 1.3

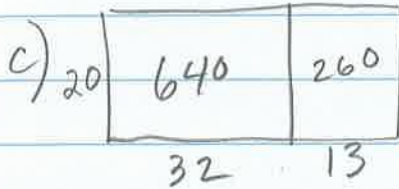
$$\text{d) } \frac{6}{8} = \frac{x}{12}$$

7-76)

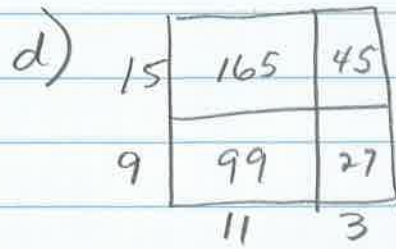
$$\begin{aligned} \text{a) } A &= bh \quad : \\ &= 48 \cdot 102 \\ &= 4896 \text{ units}^2 \end{aligned}$$



$$\begin{aligned} A &= 13 \cdot (7+x) \\ &= 91 + 13x \text{ units}^2 \end{aligned}$$



$$640 + 260 = 900 \text{ units}^2$$



$$336 \text{ units}^2$$