

HW 39

p180

103. b & c are \perp 104. a & c are \parallel
a & b are \perp 105. a & b are \parallel
a & c are \perp 106. a & b are \parallel
a & c are \perp 111. a) sales are up by 135
b) sales are the same
c) sales are down by 40112. a) revenues are way up
b) revenues are up
c) no change in revenues113. a) greatest \rightarrow year 10-18
least \rightarrow year 12-14b) $(6, 49,277) ; (18, 97,486)$

$$m = \frac{97486 - 49277}{18 - 6}$$

$$m = 2350.75$$

c) average increase $\$2350.75/\text{yr}$ 114. a) greatest \rightarrow year 4-5
least \rightarrow year 1-2b) $(1, 5.36) ; (7, 24.01)$

$$m = \frac{24.01 - 5.36}{7 - 1}$$

$$m = 3.1$$

c) average increase 3.1 billion
per year

115. $\frac{6}{100} = \frac{x}{200}$

$$\boxed{x = 12 \text{ ft}}$$

121. $(0, 875)$
 $(5, 0)$

$$m = \frac{0 - 875}{5 - 0} = -175$$

$$\boxed{y = -175x + 875}$$

 \rightarrow

$$122. \begin{pmatrix} 0, 25.000 \\ 10, 2.000 \end{pmatrix}$$

$$m = \frac{2000 - 25000}{10 - 0} = \frac{-23000}{10} = -2300$$

$$y = -2300x + 25000$$

$$123. S = 0.8L$$

$$124. W = 0.75x + 12.25$$

$$125. W = 0.07S + 2500$$

$$126. C = 0.55x + 120$$

$$129. a) (0, 40571) ; (8, 44112)$$

$$m = \frac{44112 - 40571}{8 - 0} = 442.6$$

$$y = 442.6x + 40.571$$

$$b) 2010: y = 442.6(10) + 40571$$
$$y = 44.997$$

$$2015: y = 442.6(15) + 40571$$
$$y = 47.219$$

c) # of student increase per year

131.

140. a) ii
b) iii
c) i
d) iv