5a.

$$\delta = E(wt \mid ht = x+2) - E(wt \mid ht = x)$$

$$E(wt \mid ht = x) = \beta_0 + \beta_1 x$$

$$\beta_0 + (\beta_1 x + \beta_1 2) - (\beta_0 + \beta_1 x)$$

$$= 2\beta_1 \qquad \delta = 2\beta_1$$

$$\frac{\sum_{i=1}^{n} (x_i - \bar{x})(y_i - \bar{y})}{\sum_{i=1}^{n} (x_i - \bar{x}) x_i}$$