

Question #2:

(a) $a = 418.1803$

$$b = 0.01975$$

$$s = 0.04748$$

(b) $\hat{y}(73.7) = 419.6359$

(c) $\hat{y}_0 = \hat{y}(x_0 = 68) = 419.5233$

$$t_{\alpha/2} = 2.365$$

Compute CI using C.I for $\mu_{Y|x_0} = \hat{y}_0 \pm t_{\alpha/2} s \sqrt{\frac{1}{n} + \frac{(x_0 - \bar{x})^2}{S_{xx}}}$