

$$\hat{y} \pm t_{1-\frac{\alpha}{2}, n-2} \sqrt{MSE \left(1 + \frac{1}{n} + \frac{\left(x_p - \bar{x} \right)^2}{\sum_{i=1}^n \left(x_i - \bar{x} \right)^2} \right)} = 38.07 \pm (2.3060) \sqrt{48.96 \left(1 + \frac{1}{10} + \frac{(7 - 5.51)^2}{110.47} \right)} = (21.03, 55.11)$$