

Formulas

$$b_1 = \frac{\sum (X_i - \bar{X})(Y_i - \bar{Y})}{\sum (X_i - \bar{X})^2}$$

$$b_0 = \bar{Y} - b_1 \bar{X}$$

Inference on b_1	
Estimated standard error of b_1	$s\{b_1\} = \sqrt{\frac{\text{MSE}}{\sum (X_i - \bar{X})^2}}$
Inference on b_0	
Estimated standard error of b_0	$s\{b_0\} = \sqrt{\text{MSE} \left(\frac{1}{n} + \frac{\bar{X}^2}{\sum (X_i - \bar{X})^2} \right)}$
Inference on \hat{Y}_h	
Estimated standard error of \hat{Y}_h	$s\{\hat{Y}_h\} = \sqrt{\text{MSE} \left(\frac{1}{n} + \frac{(X_h - \bar{X})^2}{\sum (X_i - \bar{X})^2} \right)}$
Inference on $Y_{h(\text{new})}$	
Estimated standard error of $Y_{h(\text{new})}$	$s\{\text{pred}\} = \sqrt{\text{MSE} \left(1 + \frac{1}{n} + \frac{(X_h - \bar{X})^2}{\sum (X_i - \bar{X})^2} \right)}$