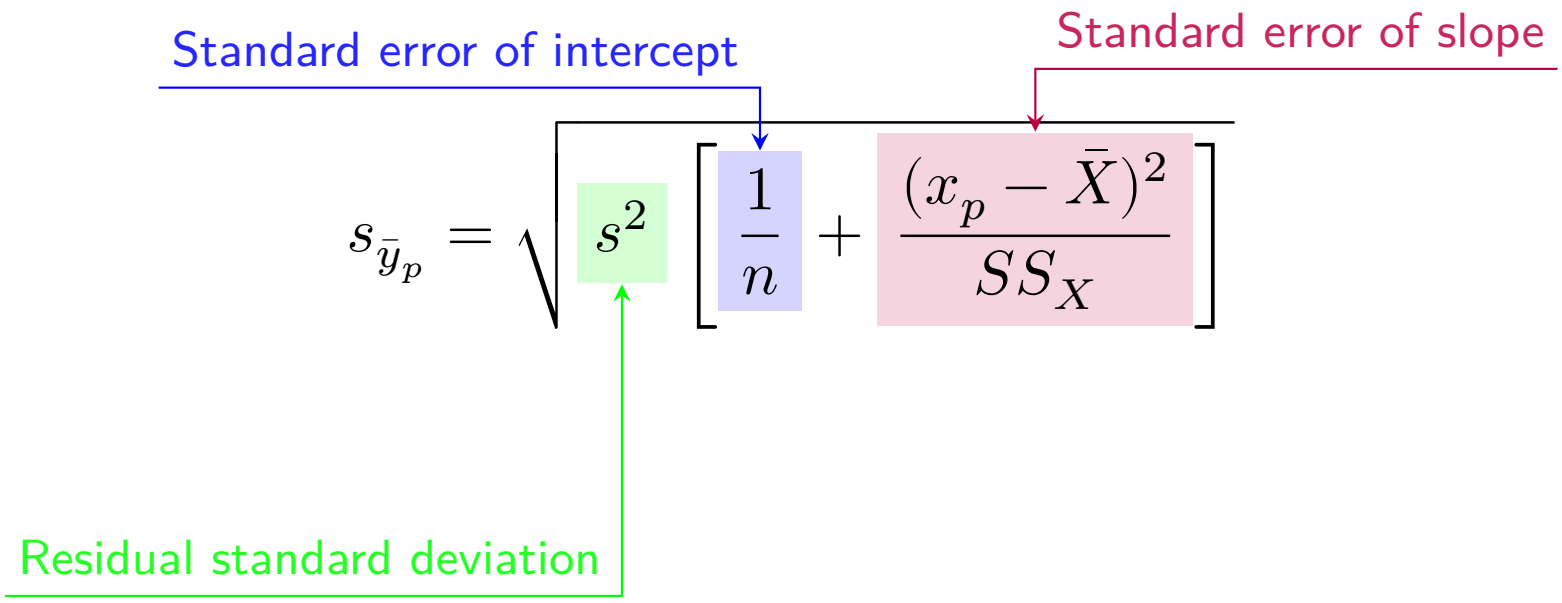
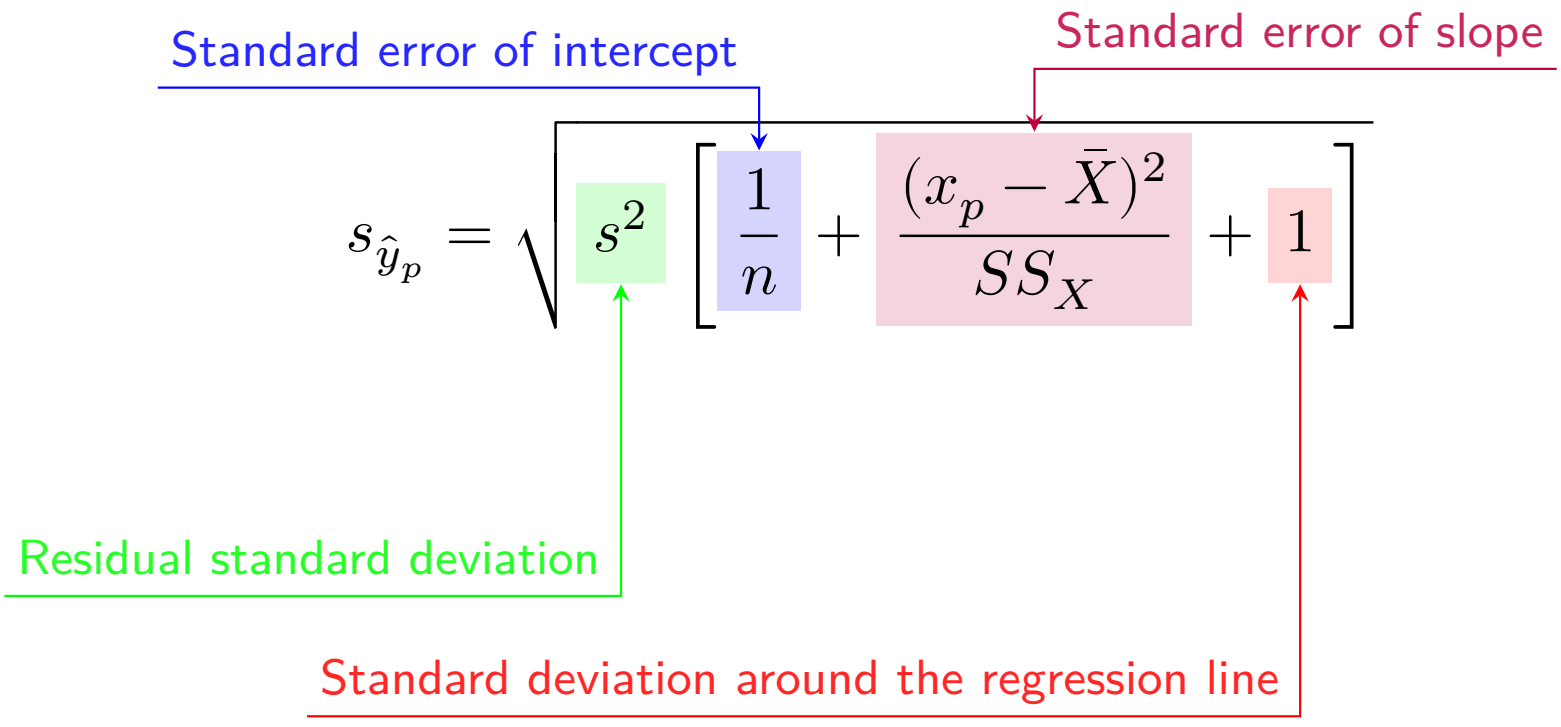
Prediction Equations

Mean Prediction Standard Error



Individual Prediction Standard Error



Cook's distance

- s^2 – residual standard deviation
- p – number of predictors
- $\widehat{y_j}$ – predicted value for Observation j
- $\widehat{y_{j(i)}}$ – predicted value for Observation j when Observation i is left out.

$$D_i = \frac{\sum_{j \neq i} (\widehat{y_j} - \widehat{y_{j(i)}})^2}{ps^2}$$