

$$H = X(X^T X)^{-1} X^T$$

 $h_i = i$ th diagonal element of H

$$\hat{e}_i = y_i - \hat{y}_i$$

$$S.E.(\hat{e}_i) = \sqrt{(1 - h_i)MSE}$$

$$\frac{\hat{e}_i}{\sqrt{(1-h_i)MSE}} = \text{Standardized Residual} >> \text{"student"}$$
 (SAS)

$$\frac{\hat{e}_i}{\sqrt{(1-h_i)MSE_{(-i)}}} = \text{Studentized Residual >> "Rstudent"}$$
(SAS)