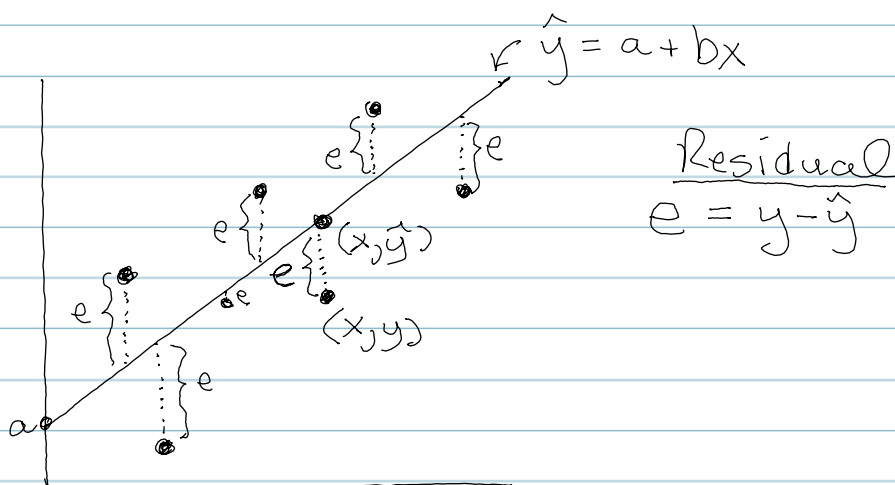


Section 3.2

Linear Regression

PART II



Each point, (x, y) , has its own residual, $e = y - \hat{y}$, and we need a way to average these. Problem: the sum of deviations and residuals is always zero!

For standard deviation we solved this with a quadratic mean . . .

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n-1}}$$

For residuals, we solve the problem the same way. First we square the residuals, then add them up! The result is called SSE.

$$SSE = \sum (y - \hat{y})^2$$

Now, we average these to compute a standard deviation (residual) of points from the LSR line.

$$s_e = \sqrt{\frac{SSE}{n-2}}$$