4 d) Setter opp Hypotesetest

$H_0: \beta = \beta_0$, $H_a: \beta \neq \beta_0$

Testverdi:

$$t = \frac{\hat{\beta} - \beta_0}{S} \sqrt{\sum x_i^2}$$

Forkaster H_0 hvis

$t \geq t_{\alpha/2, n-1}$ eller $t \leq -t_{\alpha/2, n-1}$

Der α er signifikansverdi

□

e) Vis at

$$\sum (y_i - \hat{\beta} x_i)^2 = \sum y_i^2 - \beta^2 \sum x^2$$

Løser kvadratet

$$\sum y_i^2 - 2 y_i \hat{\beta} x_i + \hat{\beta}^2 x_i^2$$

$$\sum y_i^2 + \sum \hat{\beta}^2 x_i^2$$