

Lecture Tests

Exercise 37-1

Information: see page 37

Question: Does the training increase efficiency...

Solution: Two-Sample-t-Test dependent samples

$$1) H_0: \mu_{pre} - \mu_{post} \leq 0$$

$$H_A: \mu_{pre} - \mu_{post} > 0$$

$$\alpha = 0.1 \text{ (10\%)}$$

$$2) t \text{ distribution, } DF = n - 1 = 15 - 1 = 14$$

$$t = \frac{\sum d_i}{\sqrt{\frac{n \sum d_i^2 - (\sum d_i)^2}{n-1}}}$$

$$3) t_{crit} = 1.345$$

4)

$$t = \frac{17}{\sqrt{\frac{15 \cdot 161 - 289}{15-1}}} = 1.38$$

5) Reject H_0 .