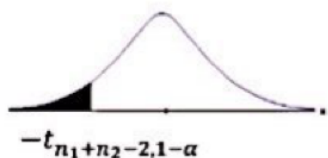


$$H_0: \mu_1 - \mu_2 \geq \Delta$$

$$H_1: \mu_1 - \mu_2 < \Delta$$



H_0 דוחים את

$$R = \{t_{\bar{x}_1 - \bar{x}_2} < -t_{n_1+n_2-2, 1-\alpha}\}$$

$$t_{\bar{x}_1 - \bar{x}_2} = \frac{\bar{x}_1 - \bar{x}_2 - \Delta}{\sqrt{\frac{S_p^2}{n_1} + \frac{S_p^2}{n_2}}}$$

$$= \frac{14 - 16}{\sqrt{\frac{7.3839}{6} + \frac{7.3839}{7}}} = -1.67$$

$$S_p^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2} = \frac{(6-1) \times 2.5^2 + (7-1) \times 2.886^2}{6+7-2}$$

$$S_p^2 = 7.3839$$

$$-t_{n_1+n_2-2, 1-\alpha} = -t_{11, 0.95} = -1.796$$

$$-1.67 < -1.796 \quad X$$

לא מתקיים כל נגזרת את
השורה האפס ברמת מובהקות
5%.

$$1 - \beta = P(A/H_1) = P(t_{\bar{x}_1 - \bar{x}_2} < -t_{n_1+n_2-2, 1-\alpha}) =$$

$$P\left(\frac{\bar{x}_1 - \bar{x}_2 - \Delta_0}{\sqrt{\frac{S_p^2}{n_1} + \frac{S_p^2}{n_2}}} < -t_{11, 0.95}\right) = P\left(\frac{x_1 - x_2 - 0}{\sqrt{\frac{7.3839}{6} + \frac{7.3839}{7}}} < -1.796\right) =$$

$$P(x_1 - x_2 < -2.987 / H_1) =$$

$$P\left(\frac{\bar{x}_1 - \bar{x}_2 - \Delta_1}{\sqrt{\frac{S_p^2}{n_1} + \frac{S_p^2}{n_2}}} < \frac{-2.987 - 0.5}{\sqrt{\frac{7.3839}{6} + \frac{7.3839}{7}}}\right) = P(t_{11, 0.95} < -2.31)$$