

ersion of

workbook

$$T = \frac{\bar{Y}_1 - \bar{Y}_2}{\sqrt{s_1^2/N_1 + s_2^2/N_2}}$$

$$v = \frac{(s_1^2/N_1 + s_2^2/N_2)^2}{(s_1^2/N_1)^2/(N_1 - 1) + (s_2^2/N_2)^2/(N_2 - 1)}$$

where N_1 and N_2 are the sample sizes, \bar{Y}_1 and \bar{Y}_2 are the sample means, and s_1^2 and s_2^2 are the sample variances.

If equal variances are assumed, then

$$T = \frac{\bar{Y}_1 - \bar{Y}_2}{s_p \sqrt{1/N_1 + 1/N_2}} \quad s_p^2 = \frac{(N_1 - 1)s_1^2 + (N_2 - 1)s_2^2}{N_1 + N_2 - 2}$$

$$v = N_1 + N_2 - 2$$

1.274689

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