

WE WANT TO FIND THE CONFIDENCE INTERVAL FOR TWO SAMPLE MEANS



Independent



Variance
unknown



Assumed to be
different

$$(\bar{x} - \bar{y}) \pm t_{v, \alpha/2} \sqrt{\frac{s_x^2}{n_x} + \frac{s_y^2}{n_y}}$$



$$v = \frac{\left(\frac{s_x^2}{n_x} + \frac{s_y^2}{n_y}\right)^2}{\left(\frac{s_x^2}{n_x}\right)^2 / (n_x - 1) + \left(\frac{s_y^2}{n_y}\right)^2 / (n_y - 1)}$$

