

T14

$$X \sim N(a, \sigma_x^2) \quad Y \sim N(b, \sigma_y^2)$$

$$\sigma_x^2 = 2$$

$$\sigma_y^2 = 1$$

$$n = 3, m = 2$$

$$H_0: a = b$$

$$H_1: a > b$$

Even ~~no~~ H_0 is true, so $\Delta = \frac{\bar{X} - \bar{Y}}{\sqrt{\frac{\sigma_x^2}{n} + \frac{\sigma_y^2}{m}}} \sim N(0, 1)$

$$W = 1 - F_N \left(4.12 - \frac{a - b}{\sqrt{\frac{\sigma_x^2}{n} + \frac{\sigma_y^2}{m}}} \right)$$