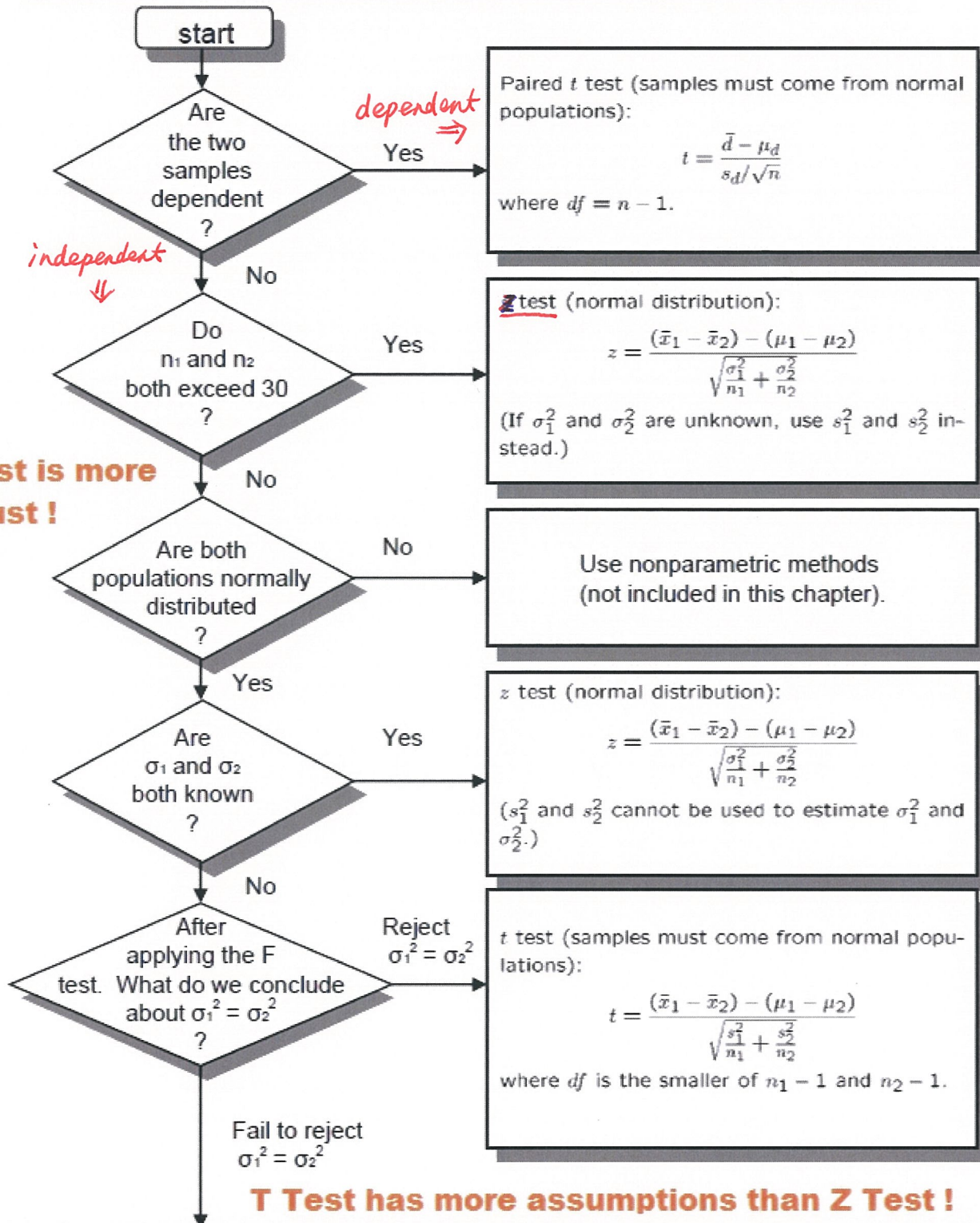


Choosing an appropriate statistic for inference about $\mu_1 - \mu_2$



Z Test is more Robust!

T Test has more assumptions than Z Test!

Testing Hypotheses Made about the Means of Two Populations

t test (samples must come from normal populations):

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_p^2}{n_1} + \frac{s_p^2}{n_2}}}$$

where $s_p^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{(n_1 - 1) + (n_2 - 1)}$
 and $df = n_1 + n_2 - 2$.