

Classroom Voting Questions: Elementary Statistics

Comparing Two Means

1. You are trying to decide whether to use a pooled t-test or a nonpooled t-test to compare two population means. Which of the following statements is not true?
 - (a) If the population standard deviations are very different, the Type I error probability can be much larger than the specified level for the pooled t-test.
 - (b) If the population standard deviations are somewhat different, the pooled t-test is preferable if the sample sizes are very different.
 - (c) If the population standard deviations are nearly the same, the pooled t-test is more powerful than the nonpooled t-test.

2. Thirty people suffering from obesity sign up to be subjects in a clinical trial. The subjects are weighed and then given a promising new supplement to take daily for six weeks. At the end of the six weeks, the subjects are weighed again. Which test is more appropriate?
 - (a) pooled t-test
 - (b) paired t-test