

Attendance Quiz 21

Name: _____ Date: _____

1. (*Inferences about two means*) Assume that the two samples are independent simple random samples selected from normally distributed populations. Do not assume that the population standard deviations are equal.

Many studies have been conducted to test the effects of marijuana use on mental abilities. In one such study, groups of light and heavy users of marijuana in college were tested for memory recall, with the results given below. Use a 0.01 significance level to test the claim that the population of heavy marijuana users has a lower mean than the light users. Should marijuana use be of concern to college students?

Items sorted correctly by light marijuana users: $n = 61$, $\bar{x} = 53.3$, $s = 3.6$

Items sorted correctly by heavy marijuana users: $n = 65$, $\bar{x} = 51.3$, $s = 4.5$

Find 95% confidence interval for two proportions.