# Z-test

# 1. The national robbery rate in the United States in 113 per 100, 000, with a standard deviation of 25. In Santa Clara County, 50 neighborhood blocks were sampled and the robbery rate was reported to be 97 per 100, 000 people. Was the Santa Clara robbery rate significantly below the national average? Test at α = .05.

# Independent Samples t- test

**Following calculations have been performed.**

**Grp 1 1=12.12 ; s21 = 3.52; n1=20 Grp 2 2 = 14.50; s22=4.60; n2=20**

**2.** Running a two-tailed test, test the null hypothesis of no difference between the two groups at .05 level of significance and n1 + n2 ̶ 2 degrees of freedom. What is t-obtained and what is your decision?

**Grp 1 1=12.12 ; s21 = 3.52; n1=10 Grp 2 2 = 14.50; s22=4.60; n2=10**

**2.** Running a two-tailed test, test the null hypothesis of no difference between the two groups at .01 level of significance and n1 + n2 ̶ 2 degrees of freedom. What is t-obtained and what is your decision?