Assignment VIII: unit IV

Q.1 Compute the student t-test for the following values in a sample of eight taking the mean of the population to be zero. -4, -2, -2, 0, 2, 2, 3, 3

Q.2 Ten individuals are chosen at random from a population and their heights are found to be in inches 63, 63, 64, 65, 66, 69, 69, 70, 70, 71.

Q.3 A random sample of 10 boys had the following I.Q."s is 70, 120, 110, 101, 88, 83, 95, 98, 107, 100. Do these data support the assumption of a population mean I.Q of 100?

Q.4 A machinist is making engine parts with axle diameter of 0.7 inch. A random sample of 10 parts show a mean diameter of 0.742 inch with a standard deviation of 0.04 inch. Compute the statistic you would use to test whether the work is meeting the specifications and state the conclusion.

Q.5 The mean weakly sales of soap bars in departmental stores was 146.3 bars per store. After an advertising campaign the mean weekly sales in 22 stores for a typical week increased to 153.7 and showed a standard deviation of 17.2. Was the advertising campaign successful?

Q.6 For a random sample of 10 pigs fed on diet A, the increases in weight in pounds in a certain period were: 10, 6, 16, 17, 13, 12, 8, 14, 15, 9. For another sample of 12 pigs, fed on Diet B, the increase in the same period were: 7, 13, 22, 15, 12, 14, 18, 8, 21, 23, 10, 17.Test whether diets A and B differ significantly as regards to their effect on increase in weight.

Q.7 Two independent samples of 8 and 7 items respectively had the following values of the variables (weight in ounces):

Sample 1: 9 11 13 11 15 9 12 14

Sample 2: 10 12 10 14 9 8 10

Is the difference between the means of the sample significant?