Assignment Solution:-

Answer 1:

Mean sales for Region A = (10 + 15 + 12 + 8 + 14) / 5 = 11.8

Mean sales for Region B = (18 + 20 + 16 + 22 + 25) / 5 = 20.2

Answer 2:

Mode of the survey responses = 4

Answer 3:

Median salary for Department A = (5000 + 5500) / 2 = 5250

Median salary for Department B = (5500 + 5800) / 2 = 5650

Answer 4:

Range of the stock prices = 26.1 - 24.8 = 1.3

Answer 5:

t-test results: p-value = 0.071, which is greater than the significance level of 0.05. Therefore, we cannot reject the null hypothesis that the mean scores are equal.

Answer 6:

Correlation coefficient between advertising expenditure and sales = 0.73, which is a strong positive correlation.

Answer 7:

Standard deviation of the heights = 4.22

Answer 8:

Linear regression results: y = 0.7x + 6.5, R^2 = 0.86

Answer 9:

ANOVA results: p-value = 0.014, which is less than the significance level of 0.05. Therefore, we can reject the null hypothesis that the mean recovery times are equal.

Answer 10:

75th percentile of the feedback ratings = 9

Answer 11:

Hypothesis test results: p-value = 0.16, which is greater than the significance level of 0.05. Therefore, we cannot reject the null hypothesis that the mean weight is equal to 10 grams.

Answer 12:

Chi-square test results: p-value = 0.045, which is less than the significance level of 0.05. Therefore, we can reject the null hypothesis that the click-through rates are equal.

Answer 13:

95% confidence interval for the population mean satisfaction score = (6.8, 7.2)

Answer 14:

Simple linear regression results: y = 0.5x + 7.5, R^2 = 0.63

Answer 15:

Mann-Whitney U test results: p-value = 0.052, which is greater than the significance level of 0.05. Therefore, we cannot reject the null hypothesis that the median preferences are equal.

Answer 16:

Interquartile range (IQR) of the ages = (45 - 35) = 10

Answer 17:

Kruskal-Wallis test results: p-value = 0.018, which is less than the significance level of 0.05. Therefore, we can reject the null hypothesis that the median accuracy scores are equal.

Answer 18:

Simple linear regression results: y = 0.7x + 80, R^2 = 0.71

Answer 19:

Standard error of the mean satisfaction score = 0.2

Answer 20:

Multiple regression results: y = 0.5x + 75, R^2 = 0.83