Histogram

The histogram shows the distribution of math scores among the students. It makes it easier to analyze the spread, shape, and central tendency of the data. It helps in identifying the range in which most of the students scored and whether the distribution is symmetric or skewed.

Scatter plot

The scatter plot shows the relationship between math scores and reading scores. It makes it easier to identify whether there is a correlation between the two variables. It helps in seeing whether the students who score high in math also score high in reading or vice versa.

Count plot

The count plot shows the count of students based on their parental level of education. It makes it easier to identify the number of students from each category and their proportion. It helps in seeing whether there are any differences in the number of students based on their parents' education level.

Box plot

The box plot shows the distribution of math scores based on gender and test preparation course. It makes it easier to identify any differences in the distribution of math scores between males and females and between those who completed the test preparation course and those who did not. It helps in comparing the quartiles, median, and outliers of the distributions.

Crosstab visualization (Bar plot)

The crosstab visualization shows the count of students based on their lunch and their parents' level of education. It makes it easier to identify any differences in the number of students who receive freereduced lunch and their parents' level of education. It helps in comparing the counts of different categories and seeing any patterns or trends. It also helps in identifying whether there is any association between a student's lunch status and their parents' level of education.