1. Perform a one-way ANOVA to test if the means of 'hwy' (highway miles per gallon) are significantly different across different 'class' categories.
2. Conduct a two-way ANOVA to investigate the interaction effect between 'class' and 'drv' (drive type) on 'cty' (city miles per gallon).
3. Perform a Chi-square test to determine if there is a significant association between 'manufacturer' and 'drv' (drive type). You will need to create a contingency table first.
4. Calculate the Pearson correlation coefficient between 'displ' (engine displacement) and 'hwy' (highway miles per gallon).
5. Perform pairwise correlation tests between 'displ', 'cty', 'hwy', and 'cyl' in the 'mpg' dataset and then create a correlation plot.