A department of transportation's study on driving speed and miles per gallon for midsize automobiles resulted in the following data:

Speed (Miles per Hour): 30 50 40 55 30 25 60 25 50 55

Miles per Gallon: 28 25 25 23 30 32 21 35 26 25

a) Develop a scatter diagram and comment.

b) Compute and interpret the sample covariance and sample correlation coefficient.