Data and Data Analysis

1. Record the speed of cars going down the street. Measure the distance between two convenient markers that are more than 10 m apart, such as telephone poles. Convert this distance to kilometres.

Measure the time it takes each of a few dozen cars to cover the distance between the poles. Convert each of these times into hours. Find the speed of each car by dividing the distance by the time. Your speeds will come out in km/h. Present your data in a table.

Were all of the drivers obeying the speed limit? If not, calculate the percent of drivers who were speeding.

Calculate the mean, the median, and the mode of the measured speeds. Which is the best indicator of central tendency? Justify your answer.

2. How long is a 6-h videotape? Obtain as many 6-h videotapes as you can find. Use a VCR with a time counter to measure the actual recording time available on each tape. Present your results in the form of a table and as a graph. Determine an appropriate measure of central tendency. Explain any surprising results.