Data and Data Analysis

1. Record the speed of a cars driving down the street.

Measure the distance between 2 objects that are more than 10 m apart, such as telephone poles.
Convert this distance to kilometres.
Example: 15 m ÷ 1000 km = 0.015 km

1 km = 1000 m

For 10 cars, measure the time it takes to travel between the poles.
Convert each of these times into hours.
Example: 10 s × 0.000277 h = 0.00277 h

1 s = 0.00027̄ h

Find the speed of each car by dividing the distance by the time.
Your speed will come out in km/h. Write your data in a table.
Example: $d \div t$
$$= 0.015 \div 0.00277$$
$$= 5.4 \text{ km/h}$$

Car	Distance (km)	Time (h)	Speed (km/h)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

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

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

2. How long is a 6-h videotape?

Get 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.

Write your results in a table and as a graph. Calculate the mean, median, and mode of the recording times.

Which is the best indicator of central tendency? Explain your answer.