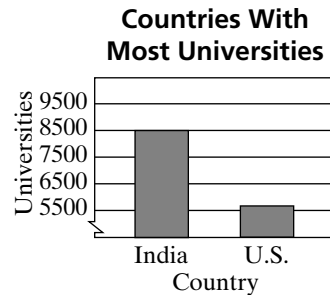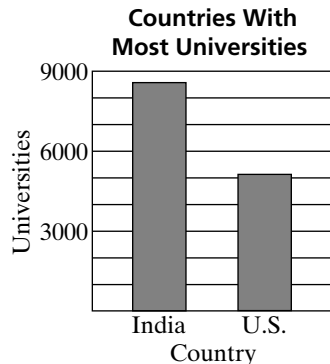# Reading Graphs Critically

Two important factors in determining whether a graph gives a correct impression of data are:

- How the scale is chosen;

- Whether the entire scale is shown.

The data at the right can be shown in a bar graph.

Countries With Most Universities

India	8407
United States	5758

Countries With Most Universities

Countries With Most Universities

In the first graph, the scale is in multiples of 1,000. The entire scale from 0 through 8,000 is shown. The graph accurately compares the numbers of universities in the two countries.

In the second graph, the scale is in multiples of 500. There is a break in the vertical scale. The graph can imply a misleading comparison between the two countries.

Use the bar graphs above to answer the questions.

1. From which graph is it easier to tell that India has about twice the number of universities as the United States?

   _____

2. In the second graph, about how many times the number of U.S. universities does India *appear* to have?

   _____

3. Which graph makes it easier to estimate the number of universities in each country? Why?

   _____

   _____

   _____

4. Why does the second graph give a misleading impression of the data?

   _____

   _____

   _____