In your groups, make up your own set of 5 data, limited to $0-100$, that would have the following characteristics. You'll need to make a new set for each question.

1. The median is 40 and the mode is 50 for your data.
2. The mean is 40 and the range is 50 for your data.
3. There are two modes; one of them is also the median.
4. The median (of YOUR five scores) is 40 , but when a new, 6 th score of 100 is included, the median changes by MORE than 10 points.
5. It is NOT possible to create 5 scores whose mean is 5 and median is 50 . Explain why, referring clearly to features of both mean and median that conflict here.
