Contrasting medians and means: Student worksheet

http://topdrawer.aamt.edu.au/Statistics/Good-teaching/Data-reduction/Mean-median-and-mode/Contrasting-the-median-and-mean

1. Here are the arm span measurements of 10 students in cm.
    Find the mean and median of the data. How close are they?

173	165	184	152	168
168	175	158	164	159

2. Here are the dates of manufacture of 10 randomly collected Australian 10-cent pieces. Find the mean and the median. How close are they?

2004	2003	1989	2005	1976
2005	2002	1978	1997	2005

3. Comment on the differences between the means and medians for the 2 data sets.

4. Use the data on 60 stufdents' arm spans and the dates on 100 randomly collected Australian 10-cent pieces, found in *Contrasting medians and means: Data* (http://topdrawer.aamt.edu.au/Statistics/Downloads/Contrasting-medians-and-means-Data).

    Create stacked dot plots of both data sets. This can be done either with paper and pencil or using software if available, such as TinkerPlots.

5. Compare and contrast the mean and median in each plot.

6. Explain why there is a gap between mean and median in one plot but not the other.

7. Why is the mean lower rather than higher than the median in one of the plots?