Class exercise set 2: Central tendency, spread, normal curves

1. What are the mean, median, and mode of the following set of numbers?
   3, 4, 1, 2, 4, 4

2. Which set of numbers has the largest mean? The highest median? The highest standard deviation?
   3, 4, 1, 2, 4, 4 or 1, 1, 1, 7, 7, 7

3. Which of the above sets is bimodal?

4. If you have a distribution with a mean of 50 and a SD of 10, what’s the probability of getting these values:
   a. inside the range 40 to 60
   b. outside the range 40 to 60
   c. outside the range 50 to 70
   d. less than 50
   e. more than 60

5. You have 2 distributions. You analyze their structure, and find that the first (a) is normally distributed, and the second (b) is positively skewed. What would be the appropriate measures of central tendency and spread to choose for each of them?
   a.
   b.

6. In a normal distribution, what measure of central tendency occurs most frequently? What measure of central tendency has the greatest magnitude?

7. In a positively skewed distribution, what measure of central tendency occurs most frequently? What measure of central tendency has the greatest magnitude?