1. Determine the probability of getting exactly 5 heads when you flip a coin 8 times.

2. Determine the probability of getting a six ***exactly four times*** when you roll a single die ten times. Round your answer to five decimal places.

3. Determine the probability of getting a six ***at least once*** when you roll a single die ten times. Round your answer to five decimal places.

4. Determine the probability of getting a six ***no more than three times*** when you roll a single die ten times. Round your answer to five decimal places.

5. A basketball player has a free throw average of 78%. Assuming that the probability of making a free throw does not change during the course of a game, find the probability that the player makes at least five out of eight free throw attempts during a game. Round your answer to three decimal places.

6. Consider the following set of raw data. The data represents the percentage of revenue spent on research and development by each of 50 companies.

6.3, 9.2, 7.0, 8.0, 5.4, 8.7, 7.3, 11.9, 12.9, 9.7, 10.2, 10.6, 9.8,
11.9, 8.8, 5.2, 7.6, 8.0, 8.8, 6.8, 7.5, 9.2, 9.4, 8.4, 10.8,
5.7, 9.4, 8.9, 7.7, 12.8, 9.9, 10.1, 9.3, 10.0, 8.3, 11.6, 9.2, 8.6,
11.5, 11.6, 12.5, 9.5, 12.4, 13.3, 9.8, 9.1, 11.3, 10.0, 11.2, 13.0

a) Complete a stem-and-leaf diagram

stem	leaf
5	
6	
7	
8	
9	
10	
11	
12	
13	

b) Complete the following frequency and relative frequency table.

class limits	class boundaries	class frequency	relative frequency
5.0-5.9	4.95-5.95		
6.0-6.9	5.95-6.95		
7.0-7.9	6.95-7.95		
8.0-8.9	7.95-8.95		
9.0-9.9	8.95-9.95		
10.0-10.9	9.95-10.95		
11.0-11.9	10.95-11.95		
12.0-12.9	11.95-12.95		
13.0-13.9	12.95-13.95		

c) Draw the histogram associated with the above frequency table.

frequency

% spent on R and D