1) Consider a regular deck of cards where the cards ace, jack, queen, and king are numbered 1, 11, 12, and 13 respectively. Consider the experiment of drawing two cards randomly from this deck without replacement.

a. Describe the outcomes of this experiment. List the elements of the sample space.

b. What is the probability of obtaining a total of 6 for the two cards?

c. Let *A* be the event “total card value is 4 or less”. Find *P(A)* and *P(Ac)*.

2) A regular six faced die is rolled 100 times, leading to the following frequencies.

Number Frequency

1. 20
2. 16
3. 18
4. 10
5. 14
6. 22
7. What is the probability of getting the number 2?
8. What is the probability of getting a number greater than 4?