Exercise 4

1) Five cards-10, jack, queen, king, ace- are shuffled face down. One of the cards is picked at random.
   a) What is the probability that the ace is picked?
   b) If the jack is drawn, and kept out, what is the probability that the next card chosen will be an ace?

2) A bag contains 5 white marbles, 3 black and 2 red.
   a) What is the probability that if one marble is chosen at random it will be white?
   b) If a white marble is chosen, and not replaced, what is the probability that a black marble will be chosen next?

3) A bag contains 6 red counters and 10 green counters.

   a) If a counter is removed what is the probability that it is red?

   b) If the counter was red and it was not replaced what is the probability that the next counter to be picked out would also be red?

4) A bag contains 1 red counter and 5 green counters.

   a) If a counter is removed what is the probability that it is red?

   b) If the counter was red and it was not replaced what is the probability that the next counter to be picked out would also be red?

5) A bag contains 5 red counters and 12 green counters.

   a) If a counter is removed what is the probability that it is red?

   b) If the counter was red and it was not replaced what is the probability that the next counter to be picked out would also be red?

---

6) A bag contains 8 red counters and 5 green counters.

a) If a counter is removed what is the probability that it is red?

b) If the counter was red and it was not replaced what is the probability that the next counter to be picked out would also be red?

7) The pupils in a class were asked how often they had visited the doctors last term.
The table gives the replies.

Visits	Frequency
1	5
2	6
3	15
4	3
5	1

a) i) How many were asked?

ii) How many said "2 times"

iii) What is the probability that if one of the pupils is chosen at random they will have said "2 times"

b) What is the probability that if someone from the class is chosen at random they will have said:

i) 4 times?

ii) Less than 3 times?

iii) More than twice?