Basic Probability

i. Decide whether the following events are impossible, likely, even, unlikely or certain:

- Christmas Day falls on 25th December
- A football team scores 15 goals in a match
- It will snow in winter
- Christmas Day falls on a Sunday
- A coin lands on heads when flipped
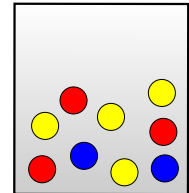- There will be a 31 days in April next year

ii. Jonathan flips two fair coins. List all the possible outcomes, using T for tails and H for heads.

iii. You have a box containing some red, yellow and blue balls.

- What is the probability you will pick a yellow ball?
- What is the probability you will pick a red or a yellow ball?

One of the yellow balls is removed from the box.

- What is the probability you will now pick a red ball?

iv. You have a deck of 52 playing cards.

- What is the probability you will pick a red card?
- What is the probability you will pick a spade?

The King of Clubs is removed from the deck.

- What is the probability you will now pick a black card?

v. You have a fair 6-sided dice.

- What is the probability the die will land on 1?
- What is the probability the die will land on an even number ?
- What is the probability the die will land on 2 or 5 ?

vi. Consider the following 6-sided spinner.

- The spinner is not fair. Explain why.
- What is the probability of the spinner landing on 1 or 2?
- What is the probability of the spinner landing on an even number?
- If there was another identical spinner and both were spun, what is the probability of both landing on 3?