

Starter:

Q1 - World Cup

These are the semi-finals of the 2050 World Cup:

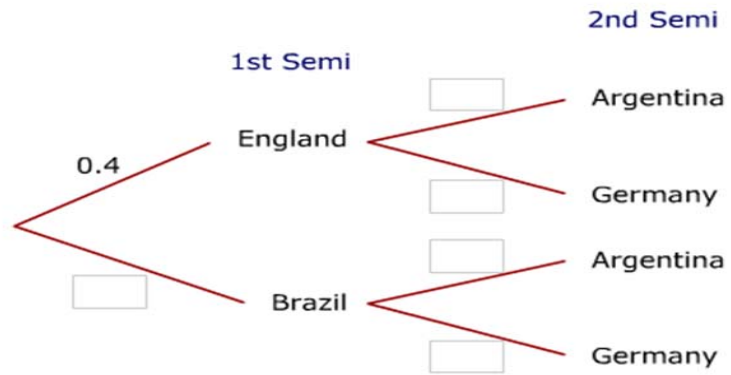
England v Brazil
Argentina v Germany

The probability that England reach the final is 0.4.

The probability that Germany reach the final is 0.7.

Complete the tree diagram.

[5]

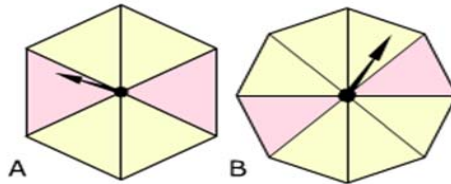


Work out the probability that the final is between a European and a South American team.

[3]

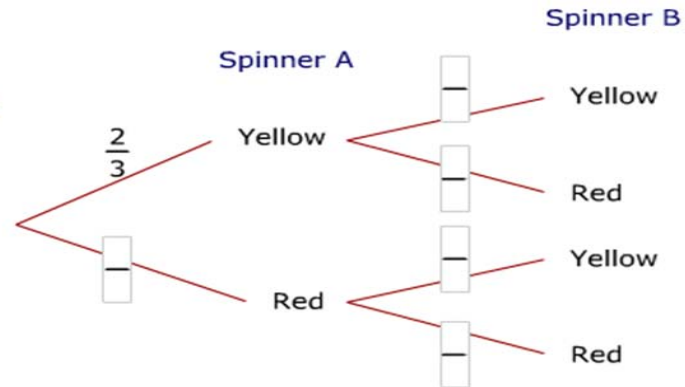
Q2 - Spinners

These two spinners are ready to be spun.



Complete the tree diagram.

[5]

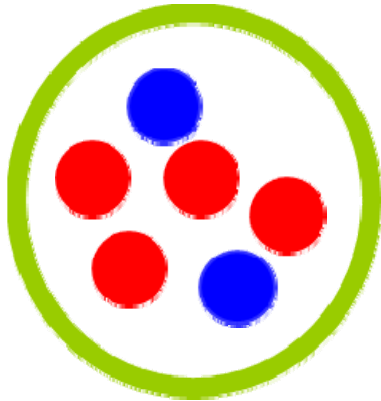


Work out the probability that they will be different colours.

[3]

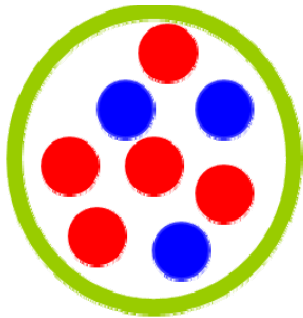
Example 1

A bag contains 2 blue and 4 red beads. When a bead is taken from the bag, it is not replaced. Draw a tree diagram to show all the possibilities of two beads being taken consecutively



Example 2

A bag contains 3 blue and 5 red beads. When a bead is taken from the bag, it is not replaced. Draw a tree diagram to show all the probabilities for each case.



Example 3

A contestant has two darts and wins a game if he/she can burst a balloon using these two darts. The probability of a burst with the first attempt is $\frac{1}{3}$. If the contestant fails with the first attempt, the second attempt has a probability of $\frac{1}{2}$. What is the probability of bursting the balloon?

