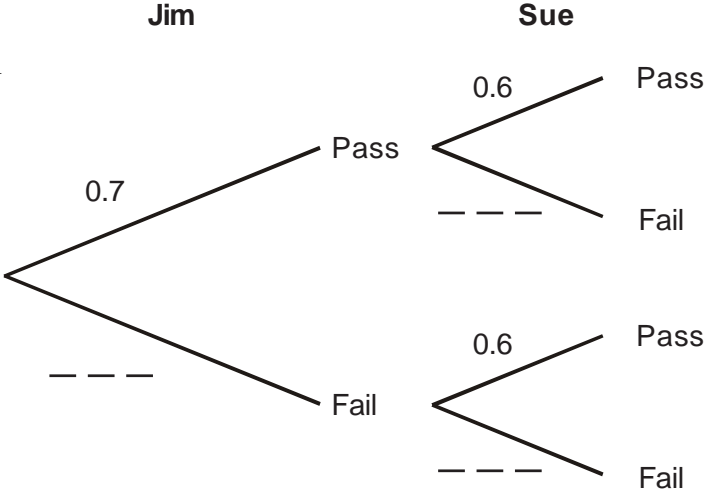


Simple Tree Diagrams

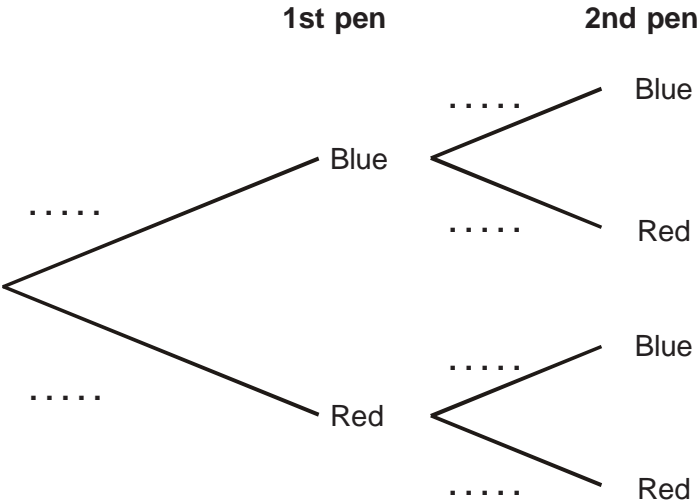
- 1) Jim and Sue each take a driving test.
 The probability that Jim will pass the driving test is 0.7
 The probability that Sue will pass the driving test is 0.6
 a) Complete the probability tree diagram.



- b) Work out the probability that both Jim and Sue will pass the driving test.
 c) Work out the probability that only one of them will pass the driving test.

- 2) Terri has 7 pens in a box.
 2 of the pens are blue.
 5 of the pens are red.
 Terri takes at random a pen from the box and writes down its colour.
 Terri puts the pen back in the box.
 Then Terri takes at random a second pen from the box and writes down its colour.

- a) Complete the probability tree diagram.

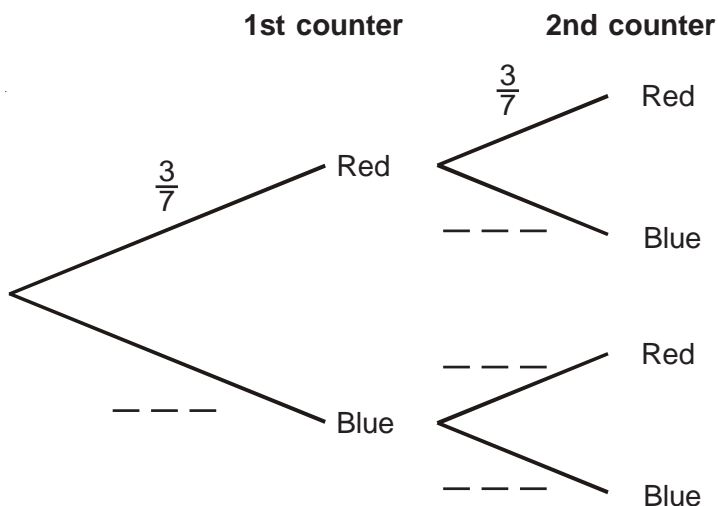


- b) Work out the probability that Terri takes exactly one pen of each colour from the box.

Simple Tree Diagrams

- 1) Tim puts 3 red counters and 4 blue counters in a bag.
 He takes at random a counter from the bag.
 He writes down the colour of the counter.
 He puts the counter in the bag again.
 He then takes at random a second counter from the bag.

a) Complete the probability tree diagram.

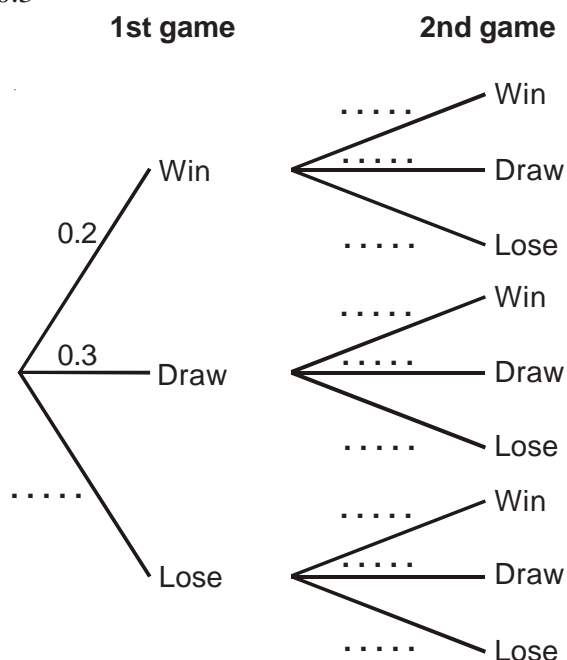


b) Work out the probability that Tim takes two red counters.



- 2) In a game of chess, a player can either win, lose or draw.
 The probability that Jane wins any game of chess is 0.2
 The probability that Jane draws any game of chess is 0.3
 Jane plays 2 games of chess.

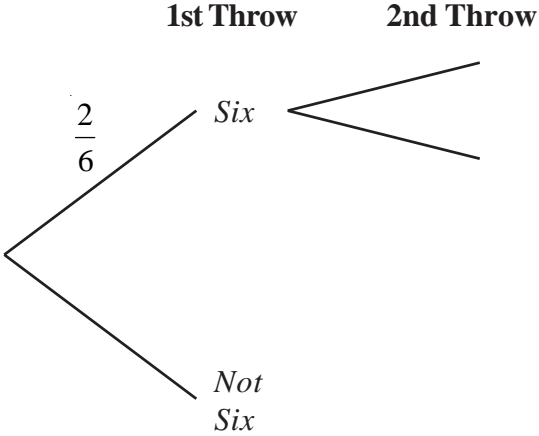
a) Complete the probability tree diagram.



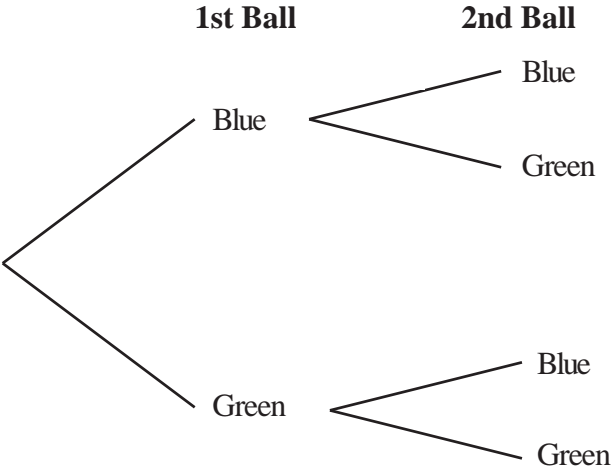
b) Work out the probability that Jane will win both games.

Simple Tree Diagrams

- 1) Lucy throws a biased dice twice.
 Complete the probability tree diagram to show the outcomes.
 Label clearly the branches of the tree diagram.



- 2) A bag contains 10 coloured balls.
 7 of the balls are blue and 3 of the balls are green.
 Nathan is going to take a ball, replace it, and then take a second ball.
 a) Complete the tree diagram.



- b) Work out the probability that Nathan will take two blue balls.
- c) Work out the probability that Nathan will take one of each coloured balls.
- d) Work out the probability that Nathan will take two balls of the same colour.