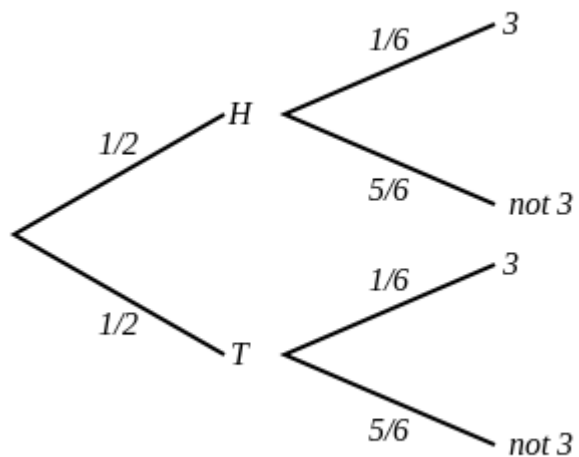


Probability – Sample Space & Tree Diagrams

1) A coin is tossed and a dice is thrown.

[1]

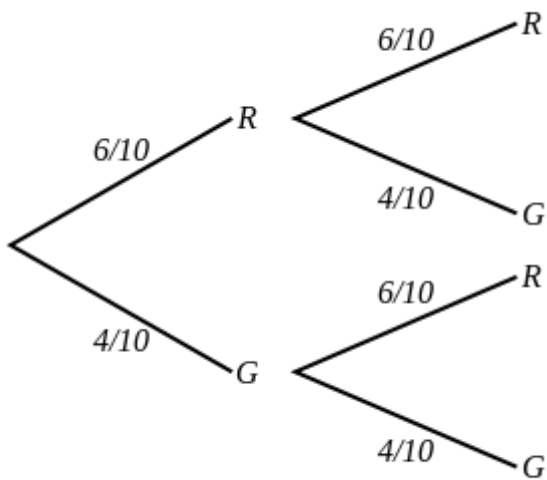
Find the probability of getting tails and a 3.



2) The tree diagram below shows the outcomes of choosing two marbles out of a jar that contains 6 red marbles and 4 green marbles. [1]

Note that the first marble is returned to the jar before the second is picked.

Find the probability that one marble is red and the other is green.



3) A fair coin is tossed twice. [1]

Make a sample space diagram and use it to calculate the probability of a tail and a head.

4) A coin is tossed and a dice is thrown. [1]

Make a sample space diagram and use it to calculate the probability of heads and a 2.

5) One marble is picked out of a jar that contains 4 orange marbles and 7 purple marbles [1]
and returned to the jar.

A second marble is then chosen from the same jar.

Draw a tree diagram and use it to calculate the probability that both are purple.

6) Two marbles are picked out of a jar that contains 3 green marbles, 5 red marbles and 6 [1]
yellow marbles.

Note that the first marble is replaced before the second is picked.

Draw a tree diagram and use it to calculate the probability that one is green and the other is red.