



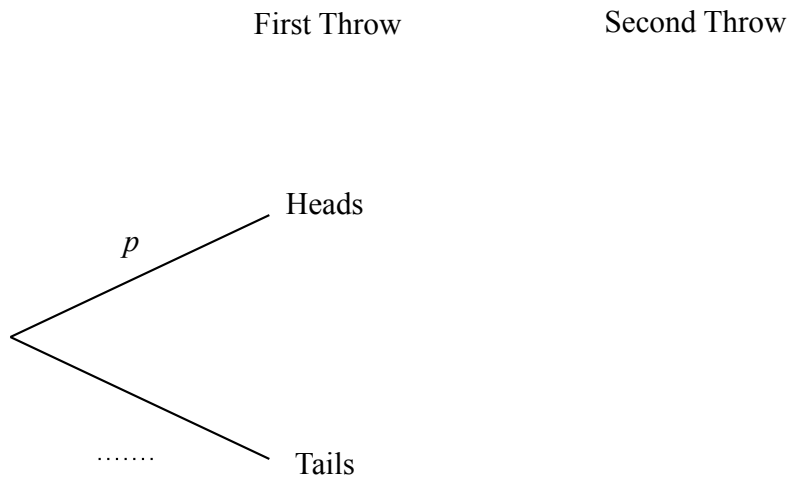








6. Michael has a biased coin.  
The probability that Michael will throw a Head on any throw is  $p$ .  
Michael throws the coin twice.
- (a) Complete the probability tree.  
Give the probabilities in terms of  $p$ .



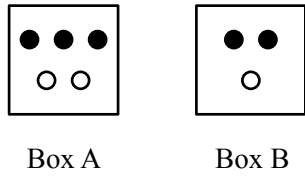
- (b) Find expressions, in terms of  $p$ , for the probability that Michael will throw:
- (i) two heads
- (ii) two tails
- (iii) exactly one head

Given that  $p = 0.7$

- (c) Work out the probability that Michael will throw a head on his second throw.

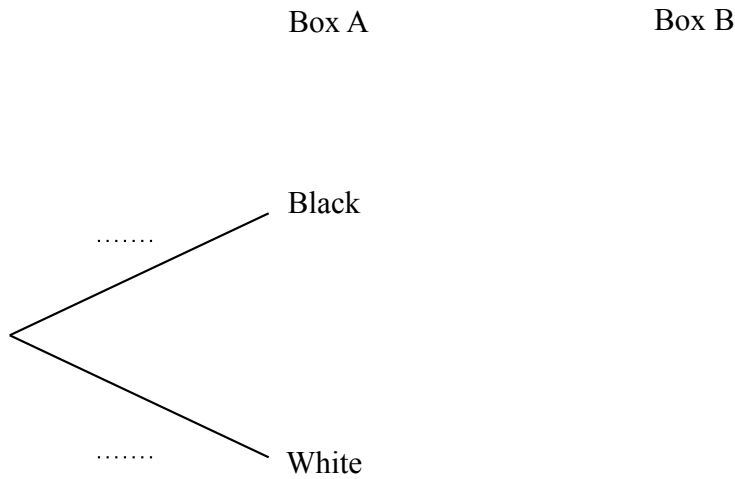


8. In box A, there are 3 black counters and 2 white counters.  
 In box B there are 2 black counters and 1 white counter.



Alec takes at random a counter from Box A and puts it into Box B.  
 He then takes at Random a counter from Box B.

- (a) Complete the probability tree.



- (b) Work out the probability that the counter that he takes from Box B will be a black counter.