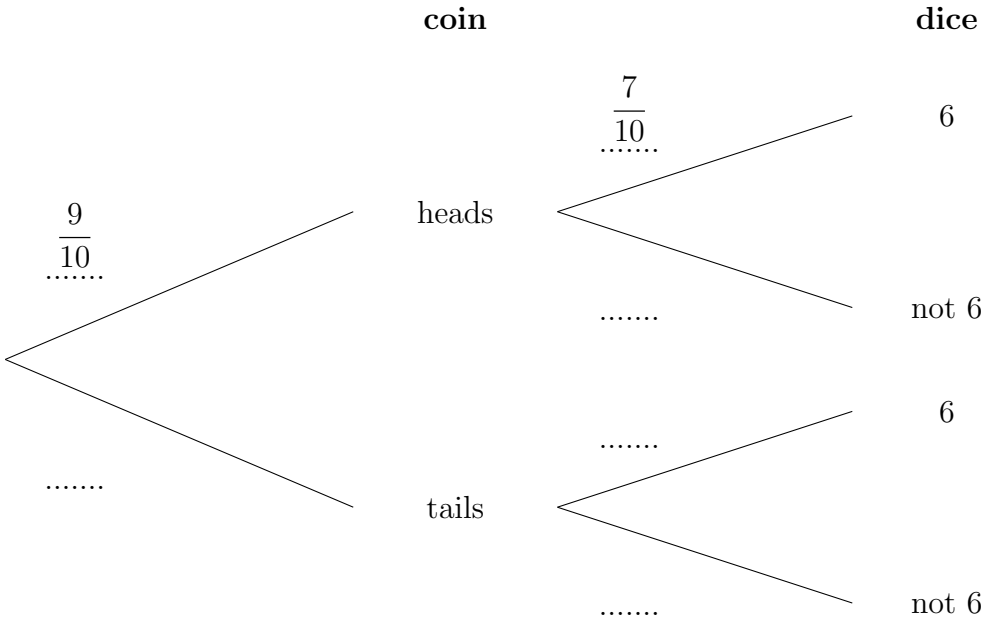
1. Bob throws a biased coin and then rolls a biased dice.
   The probability that the biased coin is a head is $\frac{9}{10}$
   The probability that the biased dice scores a six is $\frac{7}{10}$

   (a) Complete the probability tree diagram.

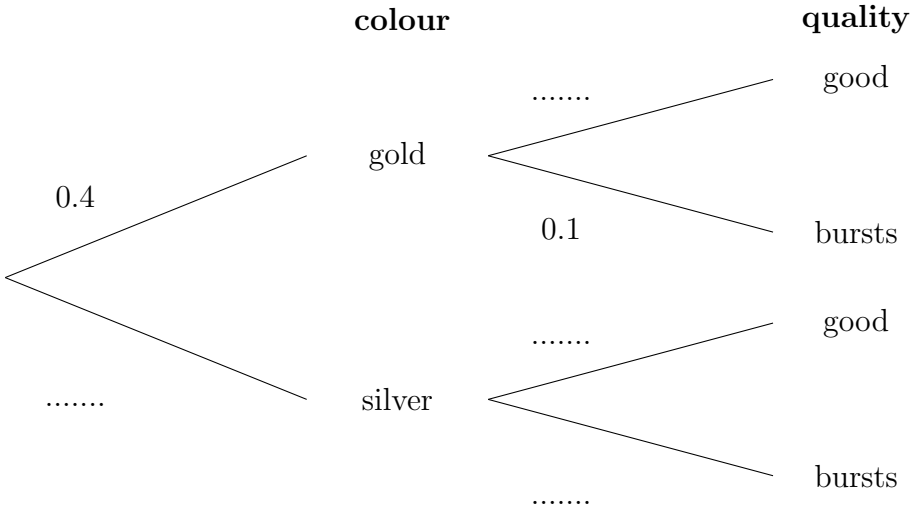


   (b) Work out the probability of Bob getting a head but not a 6

   .....

2. Addison selects a balloon at random from a packet.
   The packet contains only gold and silver balloons.
   The probability she selects a gold balloon is 0.4
   The probability that a balloon bursts when she blows it up is 0.1

   (a) Complete the probability tree diagram.

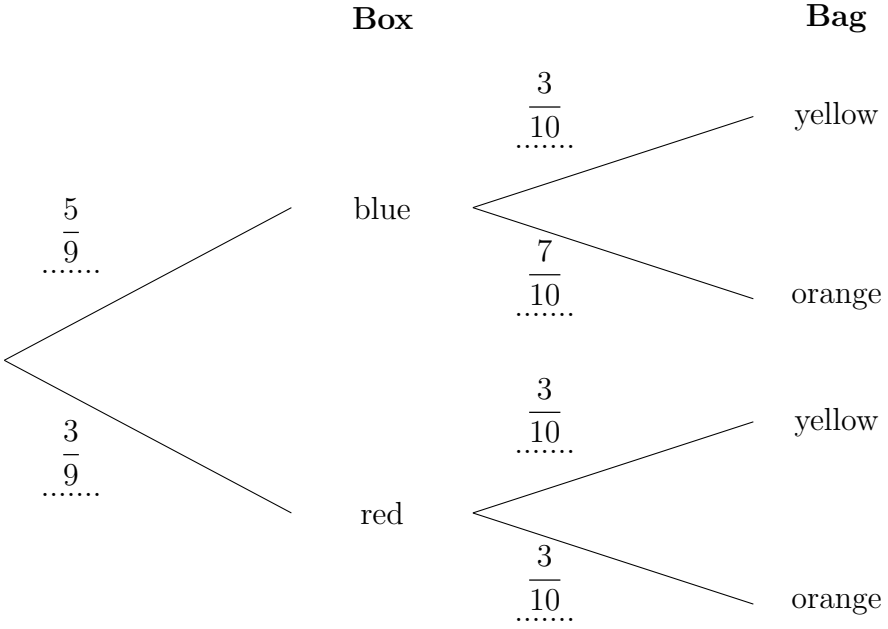


   (b) Work out the probability of Addison blowing up a good silver balloon.

   .....

3. Ibrahim has a box containing 5 blue and 3 red counters.
He also has a bag containing 3 yellow and 7 orange counters.
Ibrahim takes at random one counter from the box.
Ibrahim takes at random one counter from the bag.

He draws this probability tree diagram.
The diagram is **not** correct.



Write down **two** things wrong with the probability tree diagram.

1. .....

.....

2. .....

.....

(1)

$\frac{9}{10}$ $\frac{7}{10}$ $\frac{3}{10}$

$\frac{1}{10}$ $\frac{7}{10}$ $\frac{3}{10}$

(b) $\frac{27}{100}$

(2)

0.4 0.9 0.1

0.6 0.9 0.1

(b) 0.54

(3)

either blue: $\frac{5}{8}$ not $\frac{5}{9}$

or red: $\frac{3}{8}$ not $\frac{3}{9}$

orange: $\frac{7}{10}$ not $\frac{3}{10}$