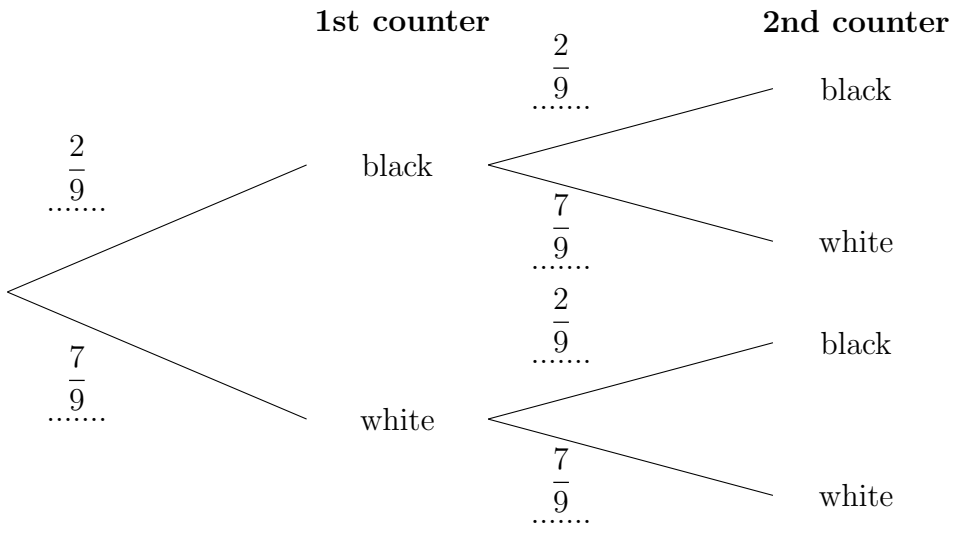
1. Mabel has 2 black and 7 white counters in a bag.

   Mabel takes at random a counter looks at the colour and puts it back in the bag.

   She shakes the bag and takes at random a counter from the bag and looks at the colour.

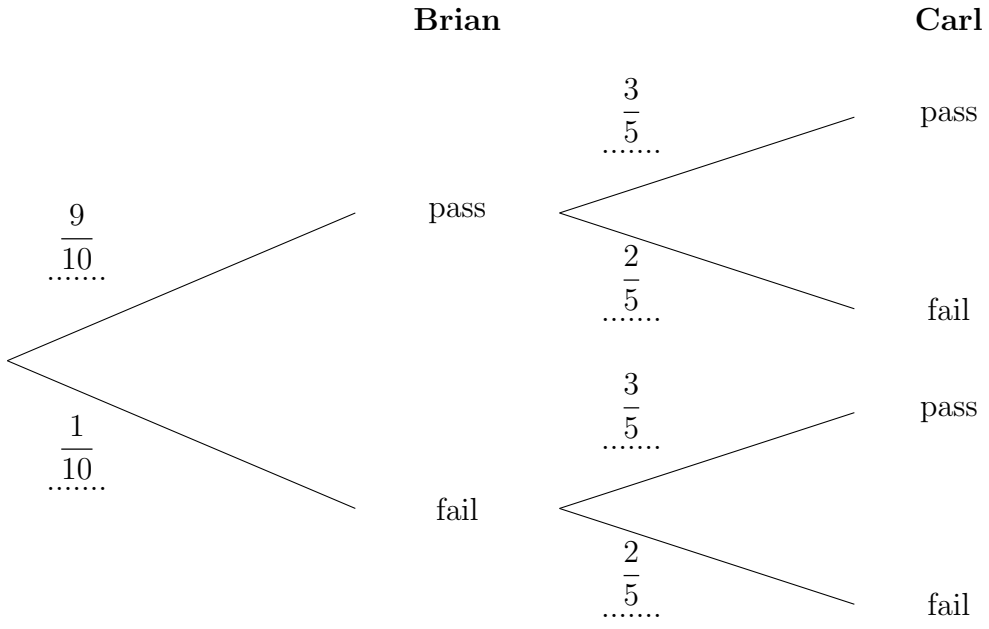


   Work out the probability of Mabel taking a white first and taking a black second.

   1. .....

2. Brian and Carl are taking a music test.

   Brian has a $\frac{9}{10}$ chance of passing and Carl has a $\frac{3}{5}$ chance of passing.



   Work out the probability that they both fail.

   2. .....

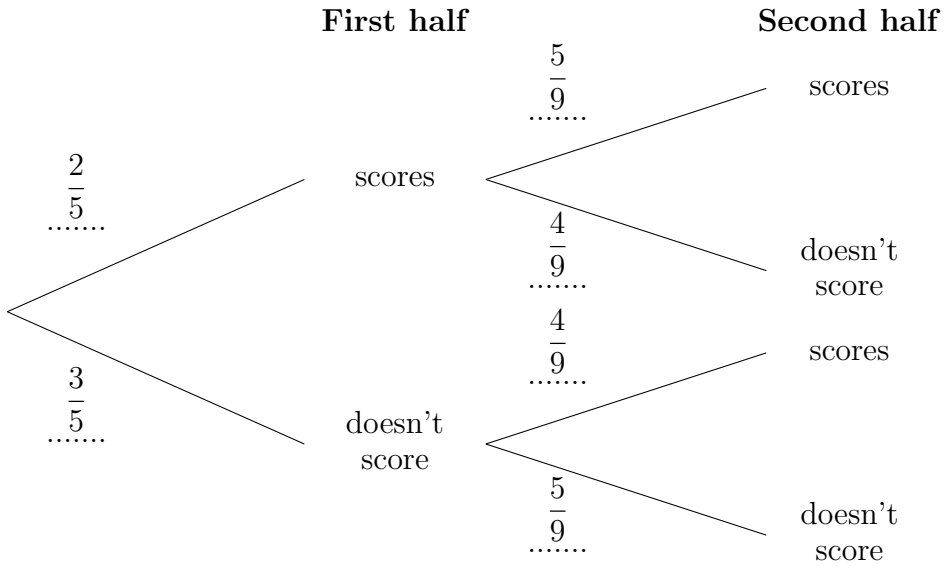
   Turn over for more questions and answers

3. Ava is football player.

   The probability Ava scores in the first half is $\frac{2}{5}$

   When Ava scores in the first half the probability she scores in the second half is $\frac{5}{9}$

   When Ava doesn't score in the first half the probability she scores in the second half is $\frac{4}{9}$

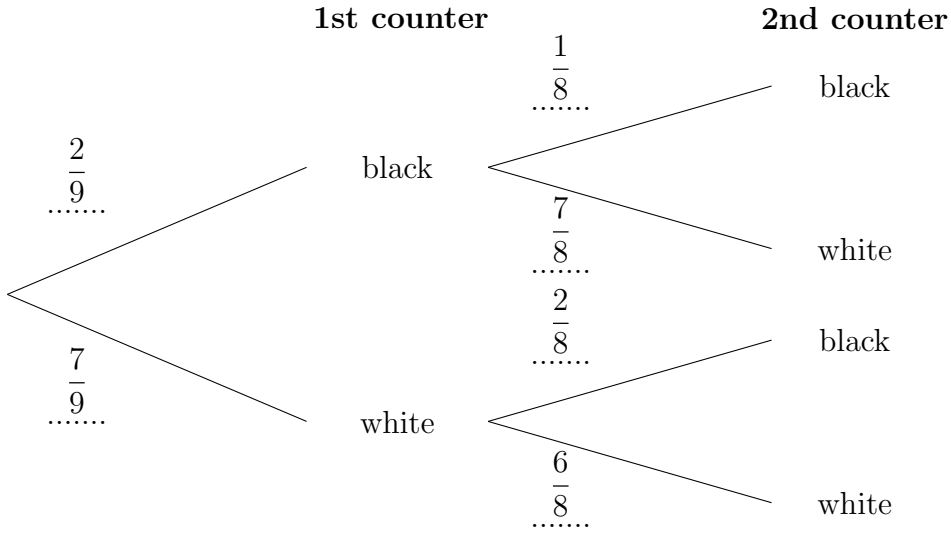


   Work out the probability of Ava not scoring in the first half but scoring in the second half.

   3. .....

4. Mabel has 2 black and 7 white counters in a bag.

   Mabel takes at random two counters from the bag.



   Work out the probability of Mabel taking a white first and taking a black second.

   4. .....

Answers 1) $\frac{14}{81}$ or $\frac{7}{9}$ 2) $\frac{2}{50}$ or $\frac{1}{25}$ 3) $\frac{12}{45}$ 4) $\frac{14}{56}$ or $\frac{7}{28}$ or $\frac{2}{8}$ or $\frac{1}{4}$