*MATHS TEACHER HUB Higher Homework 35: Probability

1. The table below shows the probabilities of choosing a counter from a bag.

The value of yellow to black is in a ratio of 2:3 Complete the table.

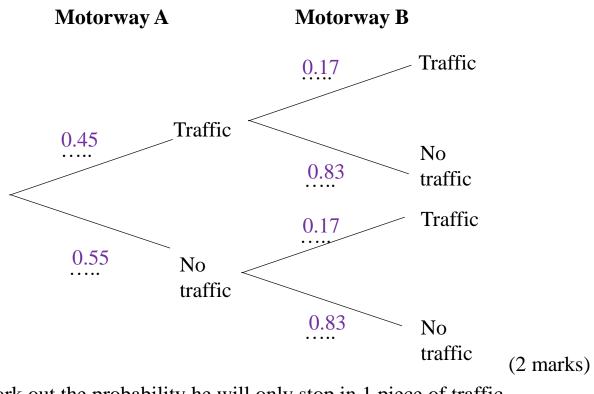
Green	Blue	Yellow	Black
0.24	0.41	0.14	0.21

(2 marks)

2. Ross has to drive along two different motorways to get home from work. The probability he will hit traffic on motorway A is 0.45

The probability he will hit traffic on motorway B is 0.17

(a) Complete the tree diagram.



(b) Work out the probability he will only stop in 1 piece of traffic.

0.467

(2 marks)

2. Ashley is going to roll 2 fair six sided dice.

She will sum the scores together.

Calculate the probability of scoring a prime number.

 $\frac{15}{36}$

(3 marks)

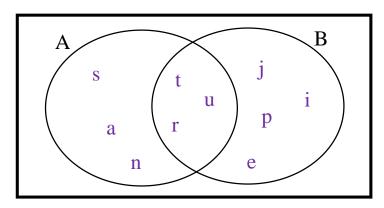
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3. The Venn diagram contains only the letters show below.

$$A = \{s, a, t, u, r, n\}$$

$$B = \{j, u, p, i, t, e, r\}$$



List the values of:

(i) $A \cap B'$

j, p, i, e

s, a, n

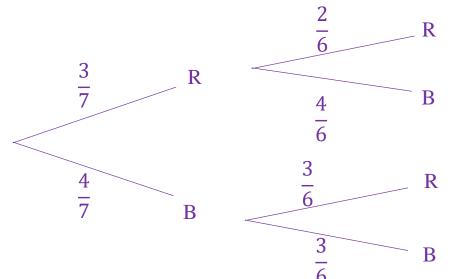
(ii) $A' \cap B$

(4 marks)

2. There are 3 red counters and 4 black counters in a bag. One counter is taken out, not replaced.

A second counter is then taken.

(a) Draw a tree diagram to display this information.



(2 marks)

(b) Work out the probability that they are both the same colour.

(2 marks)