Higher Homework 36 : 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 3:4
Complete the table.

Pink	Green	Red	Yellow
0.25	0.4		

(2 marks)

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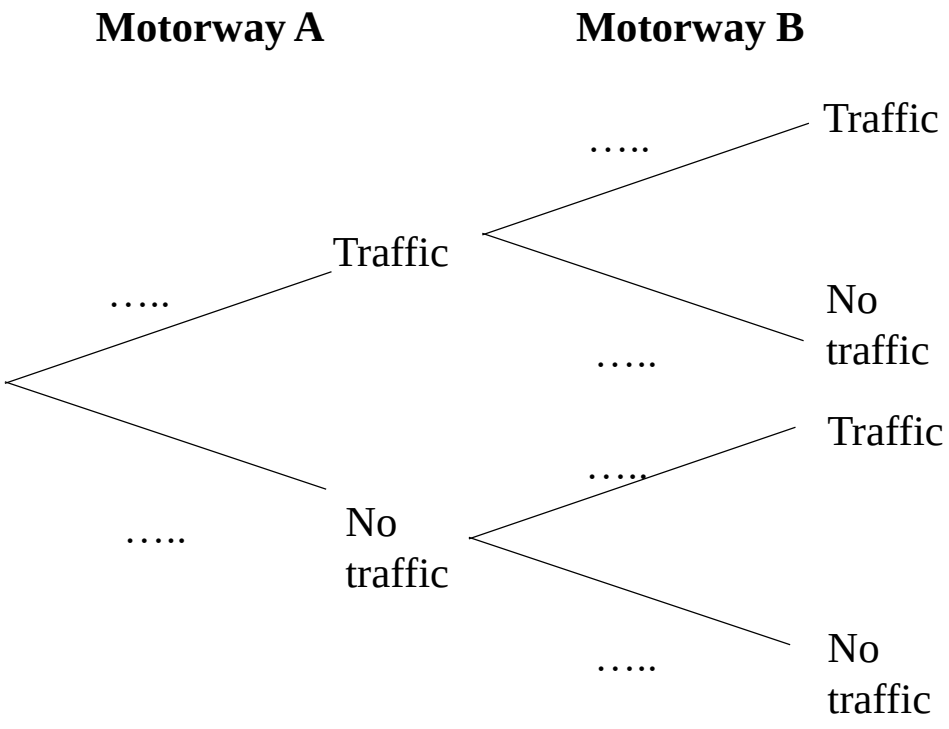
2. Ross has to drive along two different motorways to get home from work.
The probability he will hit traffic on motorway A is 0.45
The probability he will hit traffic on motorway B is 0.17

(a) Complete the tree diagram.



(2 marks)

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

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(2 marks)

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2. A game at a carnival requires you to roll 2 fair **five** sided dice.
It costs £1 to play, and 50 people played yesterday.
If you score a 10 you win £5, if you roll a 6 you get your money back.
How much profit should the game make?

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(3 marks)

3. John ask 50 people which drink they prefer.
All 50 selected at least on of the drinks
19 people liked all three drinks,
16 people liked Pepsi and Coke, but not Sprite.
24 people liked Pepsi and Sprite
40 people in total liked Coke
1 person only likes Sprite.
How many people only liked Pepsi?

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(4 marks)

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2. There are 5 Pink counters and 3 Orange 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 different colours.

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(2 marks)

Score =