Name: SOLUTIONS

GCSE (1 - 9)

Probability Trees

Buy me a coffee

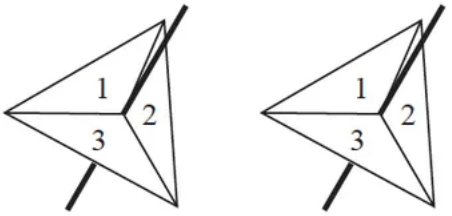
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These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk

Question	Where the question appeared
1	Edexcel, GCSE, Autumn 2020, Paper 3F, Q27
2	Edexcel, GCSE, Autumn 2018, Paper 1F, Q27
3	Edexcel, GCSE, Summer 2018, Paper 3F, Q22
4	Edexcel, GCSE, November 2022, Paper 2F, Q26
5	Edexcel, GCSE, Summer 2022, Paper 2F, Q20

1

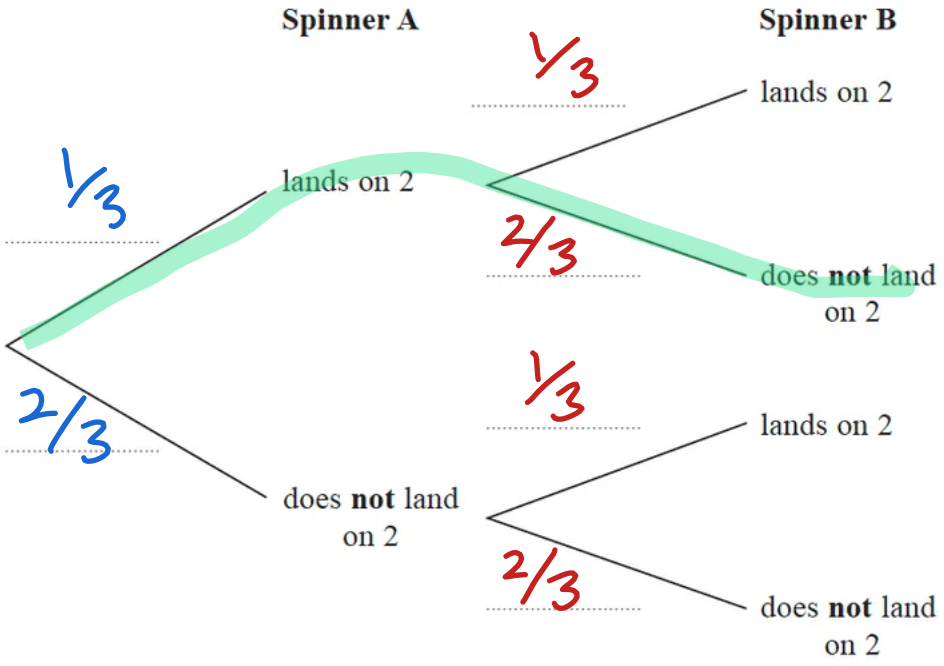
Amanda has two fair 3-sided spinners.



Spinner A **Spinner B**

Amanda spins each spinner once.

(a) Complete the probability tree diagram.



(2)

(b) Work out the probability that Spinner A lands on 2 and Spinner B does **not** land on 2

$\frac{1}{3} \times \frac{2}{3} = \frac{2}{9}$

(2)

(Total for Question 27 is 4 marks)

[Edexcel, GCSE, Autumn 2020, Paper 3F, Q27]

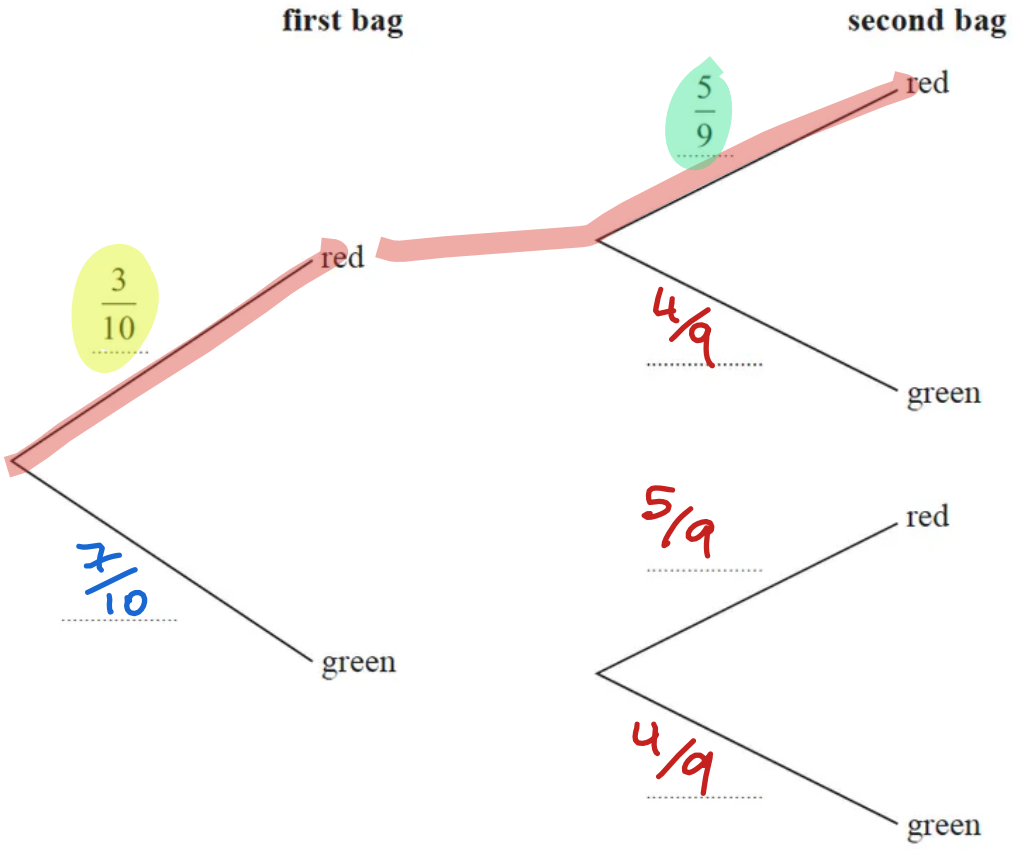
2

Amina has two bags.

In the first bag there are 3 red balls and 7 green balls.
In the second bag there are 5 red balls and 4 green balls.

Amina takes at random a ball from the first bag.
She then takes at random a ball from the second bag.

(a) Complete the probability tree diagram.



(2)

(b) Work out the probability that Amina takes two red balls.

$\frac{3}{10} \times \frac{5}{9} = \frac{15}{90} = \frac{1}{6}$

(2)

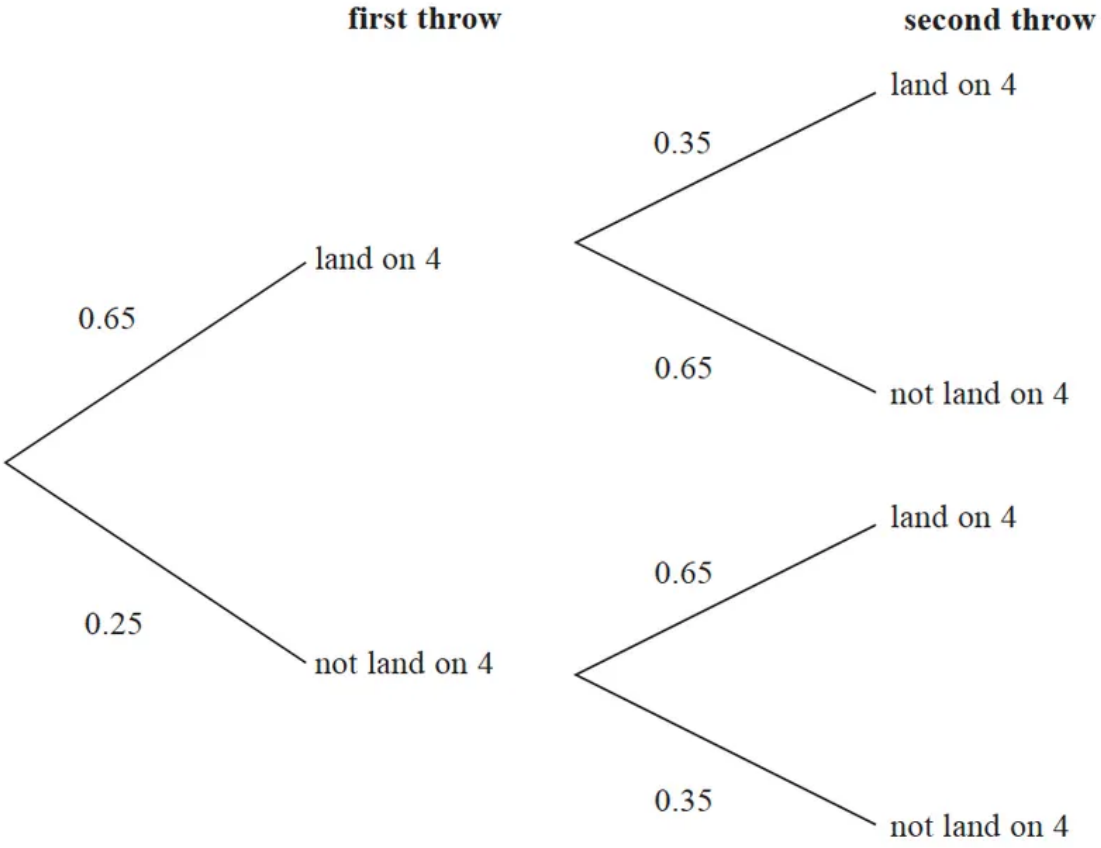
(Total for Question 27 is 4 marks)

[Edexcel, GCSE, Autumn 2018, Paper 1F, Q27]

3

When a biased 6-sided dice is thrown once, the probability that it will land on 4 is 0.65
The biased dice is thrown twice.

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



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

The probability of not landing on a 4 should be 0.35 as the probabilities should sum to 1.

For the second throw the probability of landing on 4 is reversed on the second branches. It should be the same for both branches.

(Total for Question 22 is 2 marks)

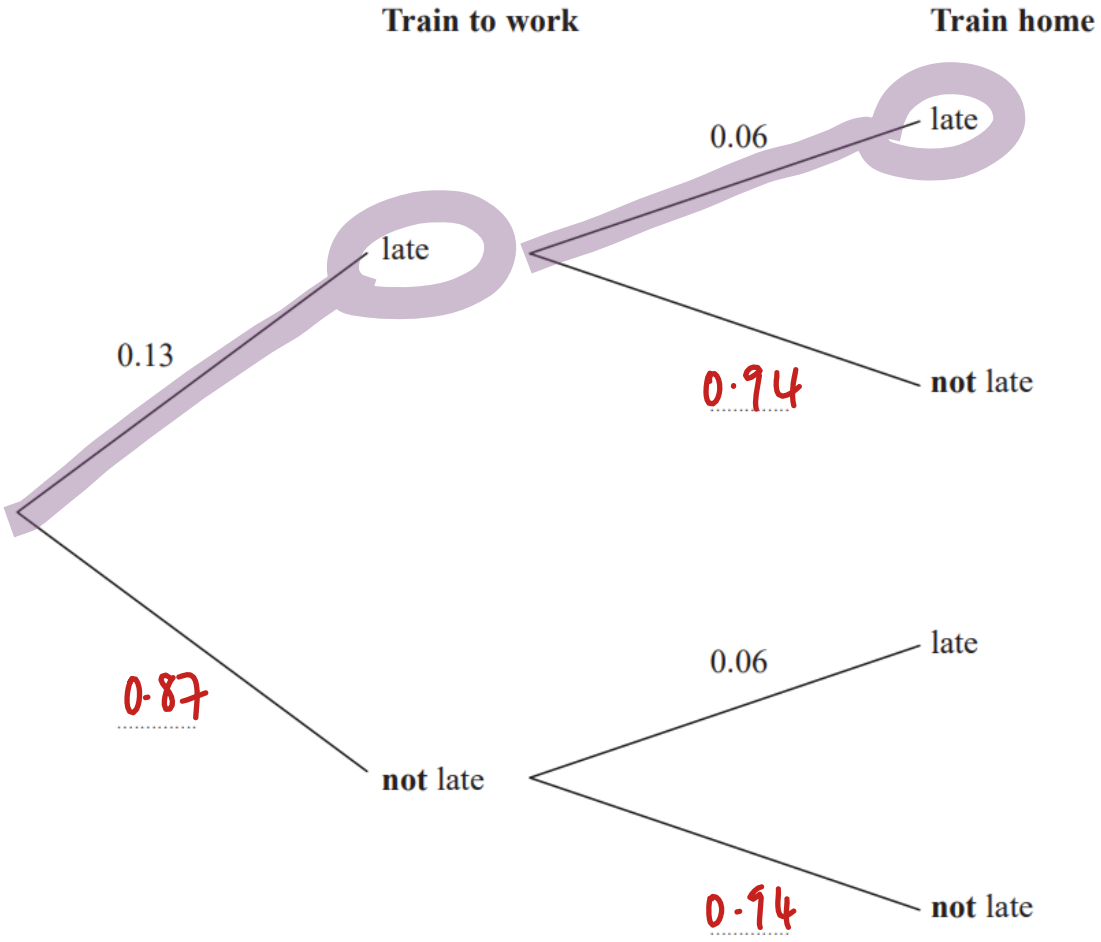
[Edexcel, GCSE, Summer 2018, Paper 3F, Q22]

5

Lorena gets a train at the same time each morning to go to work.
She gets a train at the same time each evening to come home.

The probability tree diagram shows the probabilities of each train arriving late.

(a) Complete the probability tree diagram.



(2)

For a day that Lorena goes to work,

(b) work out the probability that the train to work and the train home will both arrive late.

$0.13 \times 0.06 = 0.0078$

(2)

(Total for Question 20 is 4 marks)

[Edexcel, GCSE, Summer 2022, Paper 2F, Q20]