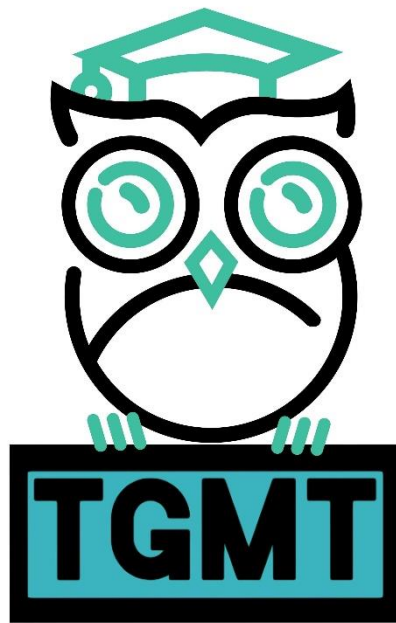


GCSE Mathematics
Practice Booklet 2026
Paper 1 (Non-Calculator)

Foundation Tier



How it all Works!

Work through the practice booklet,
scan the code, watch the live
tutorial and check your answers!

Try it out!

Disclaimer: There is no guarantee that any specific topic will be examined this way in the summer and you cannot rely on this as your only source of revision. Please visit the YouTube channel for in depth lessons on each of the topics within this document along with any recommended revision that has been instructed by your education provider.

www.thegcsemathstutor.co.uk

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages of your working.

1. Work out an estimate for $\frac{790 \times 289}{49}$

.....
(3 marks)

2. Write 124 as a product of prime factors.

.....
(2 marks)

3. A boat costs £14,200 plus 20% VAT
James pays a £5000 deposit and the rest in 10 equal monthly instalments.
Work out the cost of each of the payments.

.....
(4 marks)

4. a) Work out $\frac{5}{12} + \frac{1}{6}$

.....
(2 marks)

b) Work out $\frac{3}{10} \times \frac{5}{8}$ giving your answer in its simplest form.

.....
(2 marks)

5. Work out $1\frac{1}{5} \div \frac{3}{4}$ giving your answer as a mixed number in its simplest form.

.....
(2 marks)

6. In a sandwich shop 56 tuna sandwiches were sold.
This was 40% of the total number of sandwiches sold.
Work out the total number of sandwiches sold.

.....
(2 marks)

7. a) Write 438,000 in standard form

.....
(1 mark)

b) Write 0.00562 in standard form

.....
(1 mark)

8. a) Write 1.63×10^{-3} as an ordinary number

.....
(1 mark)

b) Write 1.452×10^3 as an ordinary number

.....
(1 mark)

9. a) Work out $(4 \times 10^3) \times (6 \times 10^{-5})$

Give your answer in standard form.

.....
(2 marks)

b) Work out $\frac{0.06 \times 0.0003}{0.01}$

Give your answer in standard form.

.....
(3 marks)

10. a) Write 0.23 as a percentage

.....
(1 mark)

b) Write $\frac{7}{100}$ as a decimal.

.....
(1 mark)

11. Write these numbers in order of size.

Start with the smallest.

$\frac{1}{2}$ 45% $\frac{2}{5}$ 0.55

.....
(2 marks)

12. In Iceland last year, the lowest temperature was -15°C

In Iceland last year, the highest temperature was 42°C greater than the lowest temperature.

Work out the highest temperature in Iceland last year.

.....
(2 marks)

13. a) Simplify $\frac{32q^9r^4}{4q^3r}$

.....
(2 marks)

b) Simplify $(5np^3)^3$

.....
(2 marks)

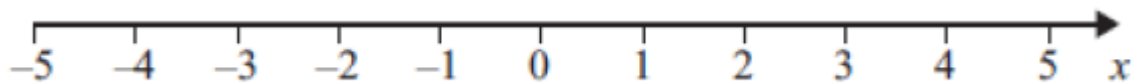
14. $P = 4x + 3y$

$x = 5$ and $y = -2$

Work out the value of P

.....
(2 marks)

15. a) On the number line, show the inequality $-3 \leq x < 4$



(2 marks)

b) Solve $7x - 27 < 8$

.....
(2 marks)

16. a) Factorise $x^2 + 4x + 3$

.....
(2 marks)

b) Factorise $x^2 + 6x + 9$

.....
(2 marks)

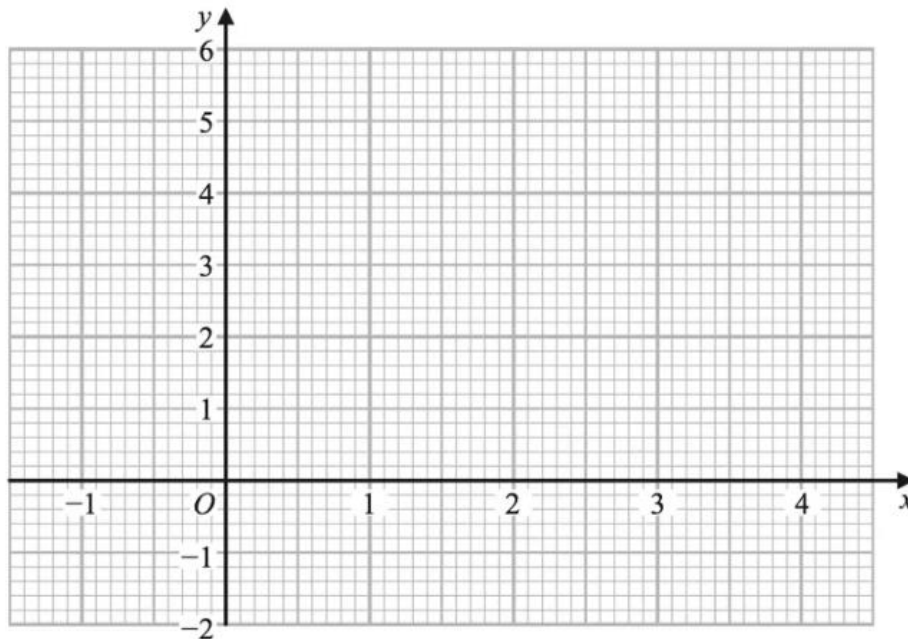
17. Solve $x^2 - 7x - 18 = 0$

.....
(3 marks)

18. a) Complete the table of values for $y = x^2 - 3x + 1$

x	-1	0	1	2	3	4
y		1	-1			

b) On the grid, draw the graph of $y = x^2 - 3x + 1$ for $x = -1$ to $x = 4$



c) Using your graph, find estimates for the solutions of the equation $x^2 - 3x + 1 = 0$

.....
(6 marks)

19. Here are the first four terms of an arithmetic sequence.

5, 11, 17, 23

Write down an expression, in terms of n , for the n th term of the sequence.

.....
(2 marks)

20. a) Change 40 centimetres into millimetres

.....
(1 mark)

b) Change 1756 grams to kilograms

.....
(1 mark)

21. Work out 15% of 160 grams

.....
(2 marks)

22. Harry, Regan and Kelan share £450 in the ratio 2 : 5 : 3
How much money does Kelan get?

.....
(2 marks)

23. A company has a total of 160 cars and vans in the ratio 3 : 7

$\frac{1}{8}$ of the cars use electricity

25% of the cars use diesel

The rest of the cars use petrol.

Work out the number of cars that use petrol.

You must show your working.

.....
(5 marks)

24. Alice pays £10 for 24 chocolate bars.
She sells all 24 chocolate bars for 50p each.
Work out Alice's percentage profit.

.....
(3 marks)

25. ABC is a straight line.



The length AB is five times the length BC.

AC = 90cm

Work out the length AB.

.....
(3 marks)

26. In a village,
The number of houses to flats are in the ratio 7 : 4
The number of flats to bungalows are in the ratio 8 : 5
There are 50 bungalows in the village.
How many houses are there in the village?

.....
(3 marks)

27. There are 30 children on a school trip.

At least 1 adult is needed for every 8 children on the trip.

a) Work out the least number of adults needed on the trip.

.....
(2 marks)

2 more children join the trip.

b) Does this mean that more adults are needed?

You must give a reason for your answer.

.....
(1 mark)

28. Karl leaves his home at 6:30am to drive to work.

He drives a distance of 50 miles.

Karl drives at an average speed of 40 miles per hour.

a) What time will Karl arrive at work?

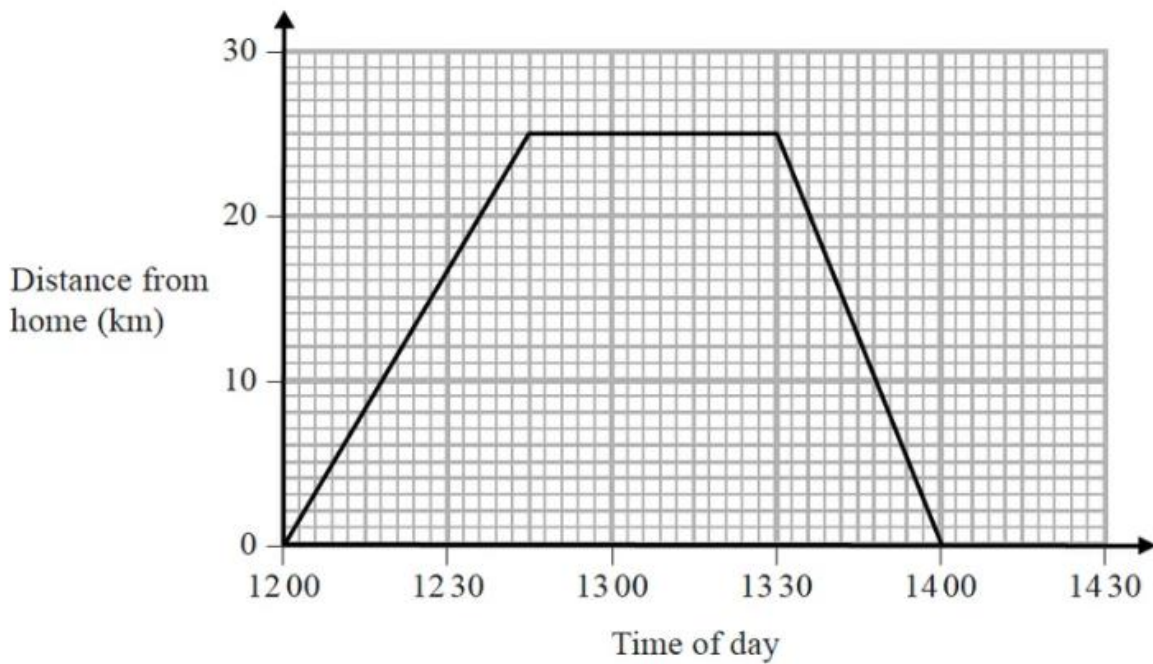
.....
(3 marks)

In fact, Karl's average speed was greater than 40 miles per hour.

b) How does this affect your answer to part (a)?

.....
.....
.....
(1 mark)

29. David drove from his home to the gym.
He stayed at the gym and then drove home.



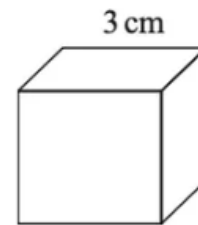
- a) For how many minutes did David stay at the gym?

.....
(1 mark)

- b) What was David's average speed on his journey home?

.....
(2 marks)

30. A cube has side lengths of 3cm.
The cube has a mass of 81g
Work out the density of the cube.

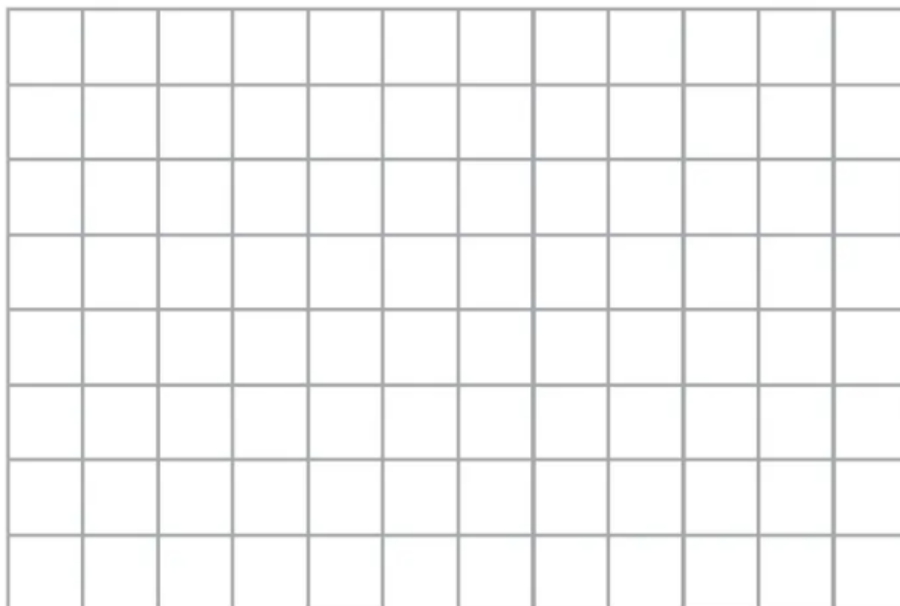


.....
(2 marks)

31. Here are two column vectors.

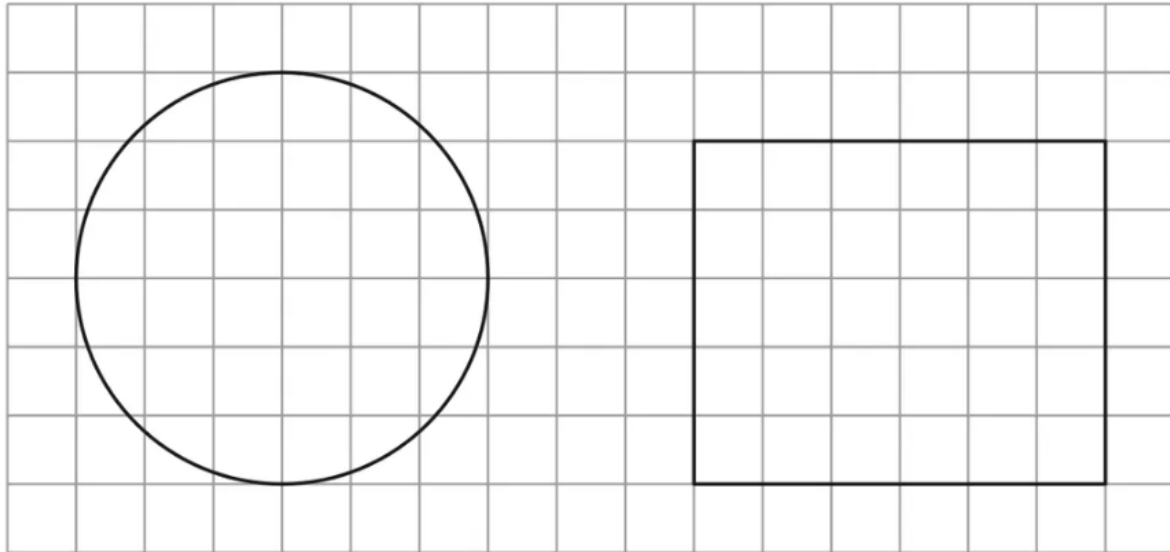
$$\mathbf{a} = \begin{pmatrix} 5 \\ 2 \end{pmatrix} \quad \mathbf{b} = \begin{pmatrix} 3 \\ -1 \end{pmatrix}$$

On the grid below, draw and label the vector $\mathbf{a} - 2\mathbf{b}$



(3 marks)

32. The centimetre grid shows the plan and front elevation of a cylinder.



Plan

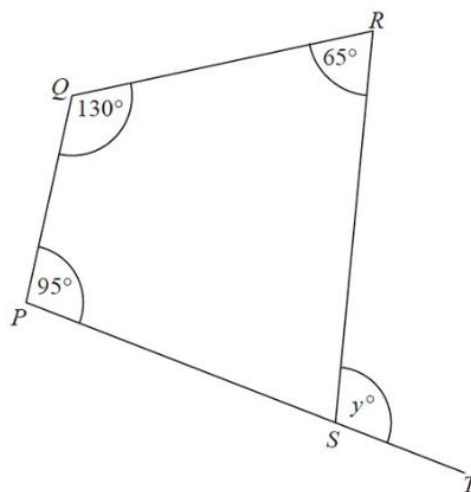
Front elevation

Work out the volume of the cylinder.

Give your answer in terms of π

.....
(3 marks)

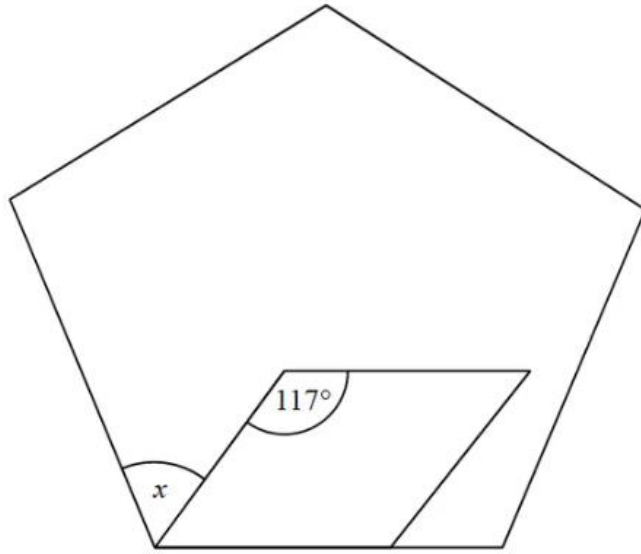
33. $PQRS$ is a quadrilateral.
 PST is a straight line.



Find the value of y .

(3 marks)

34. The diagram shows a regular pentagon and a parallelogram.



Work out the size of the angle marked x .

You must show all your working.

.....
(4 marks)

35. The total surface area of a cube is 294cm^2

Work out the volume of the cube

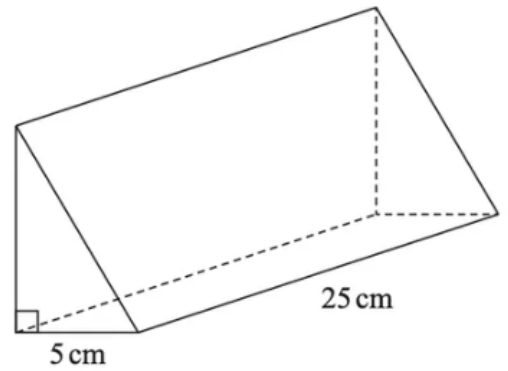
.....
(4 marks)

36. The diagram shows a prism.

The cross section is a right-angled triangle.

The prism has volume 750cm^3

Work out the height of the prism.

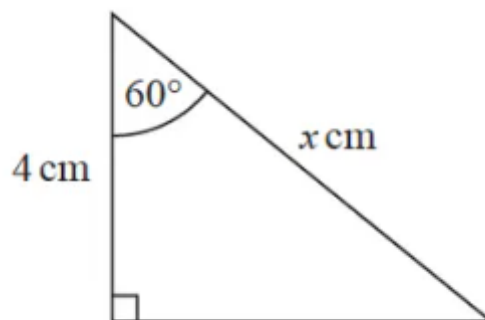


.....
(3 marks)

37. Write down the value of $\sin 30^\circ$

.....
(1 mark)

38. Here is a right-angled triangle.







$$\cos 60^\circ = 0.5$$

Work out the value of x .

.....
(2 marks)

39. The pictogram shows information about the number of pictures sold in an art shop in each of January, February and March.

January	
February	
March	
April	

Key:
 represents 8 pictures

- a) Write down the number of pictures sold in January.

.....
(1 mark)

12 pictures were sold in April.

- b) Show this information on the pictogram.

(1 mark)

- c) What was the total number of pictures sold in these four months?

.....
(2 marks)

40. Claire is planning a day trip for 195 students.

She asks a sample of 30 students where they want to go.
Each student chooses one place.

The table shows information about her results.

Place	Number of students
Theme Park	10
Theatre	5
Sports Centre	8
Seaside	7

a) Work out how many of the 195 students you think will want to go to the Theme park.

.....
(2 marks)

b) State any assumptions you made **and** explain how this may affect your answer.

.....
.....
.....

(1 mark)

41. The stem and leaf diagram gives information about the ages of people in a club.

3	1	4	5			
4	0	2	2	5	6	
5	0	1	7	7	8	9
6	3	4	5	9		
7	0	4				

Key: 4|2 represents 42 years

a) Find the median age.

.....
(2 mark)

b) Find the range of these ages.

.....
(2 mark)

42. The table shows the probability of taking different counters from a box.

Colour	blue	red	yellow
Probability	0.2		

The probability of red and yellow is the same

a) Complete the table.

There are 12 blue counters in the box.

b) Work out the total number of cubes in the box.

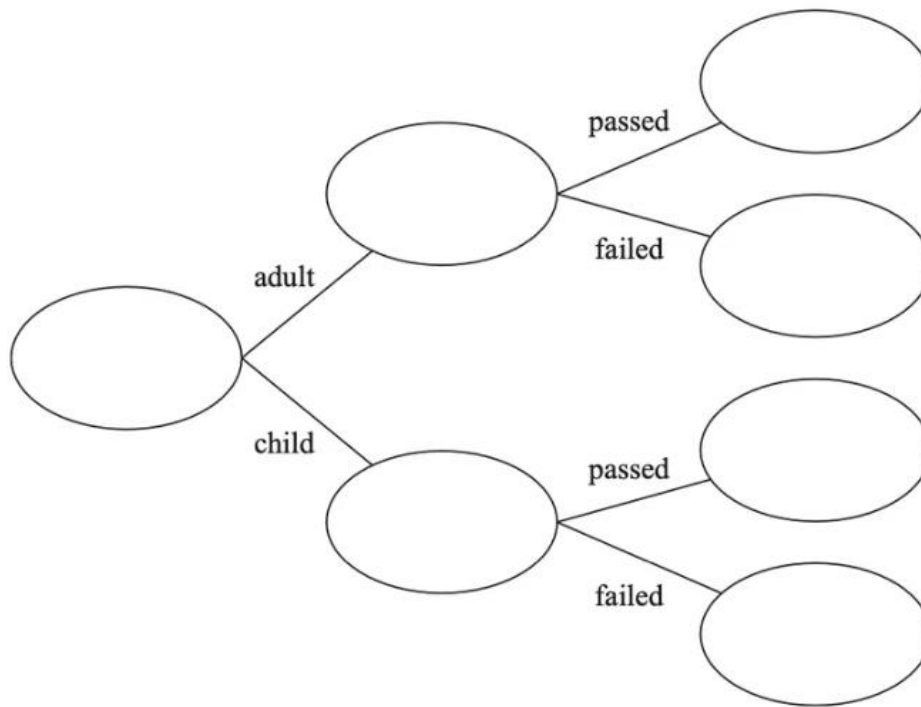
.....
(4 marks)

43. 72 people each took a driving test one day.

20 of the 32 adults who did the test passed.

6 of the children who did the test failed.

a) Use this information to complete the frequency tree.



One of these people is chosen at random.

b) Work out the probability that this person is an adult who failed the test.

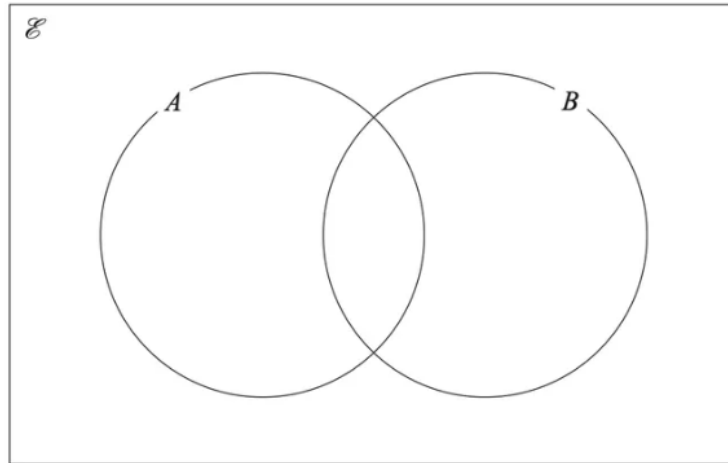
.....
(5 marks)

44. $\mathcal{E} = \{\text{even numbers less than 19}\}$

$A = \{6, 12, 18\}$

$B = \{2, 6, 14, 18\}$

Complete the Venn diagram for this information.



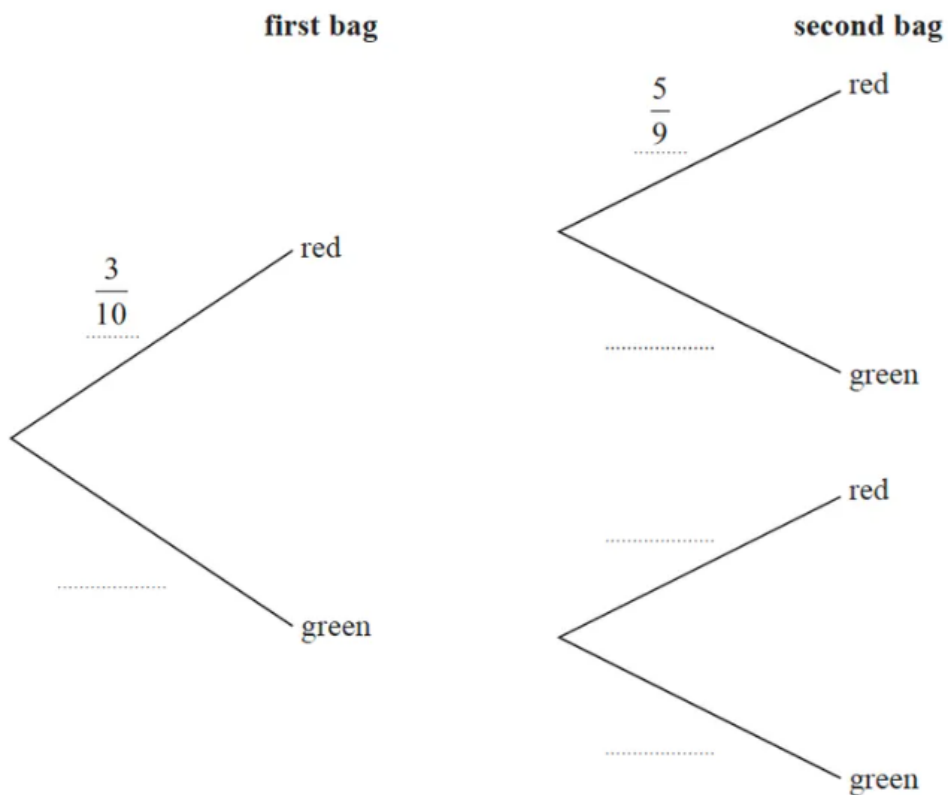
(3 marks)

45. Alice has two bags.

Alice 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.



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

.....
(4 marks)