

Every Topic on the Edexcel
2022 Advanced Information
Practice Booklet
Paper 1 (Non-Calculator)

Foundation Tier



GCSE
Maths Tutor



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.

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Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages of your working.

1. Estimate $\frac{6.32 \times 6.51}{0.503}$

.....
(2 marks)

2. Write 180 as a product of prime factors.
Give your answer in index form.

.....
(3 marks)

3. A washing machine costs £640 plus 20% VAT
James pays a £68 deposit and the rest in 10 equal monthly instalments.
Work out the cost of each monthly payment.

.....
(4 marks)

4. a) Work out $\frac{3}{4} \times \frac{2}{3}$ giving your answer in its simplest form.

.....
(2 marks)

b) Work out $\frac{2}{9} \div \frac{1}{5}$ giving your answer as a mixed number in its simplest form.

.....
(2 marks)

5. Work out $1\frac{3}{4} + \frac{2}{3}$ giving your answer as a mixed number in its simplest form.

.....
(3 marks)

6. In a bag of counters $\frac{2}{5}$ are blue.

18 counters are blue.

Work out the total number of counters in the bag.

.....
(2 marks)

7. a) Write 5600 in standard form

.....
(1 mark)

b) Write 0.0034 in standard form

.....
(1 mark)

8. a) Write 2.3×10^5 as an ordinary number

.....
(1 mark)

b) Write 8.04×10^{-3} as an ordinary number

.....
(1 mark)

9. a) Work out $(4 \times 10^5) \times (3 \times 10^{-2})$

Give your answer in standard form.

.....
(2 marks)

b) Work out $(3 \times 10^3) \div (6 \times 10^{-2})$

Give your answer in standard form.

.....
(2 marks)

10. a) Write 35% as a decimal

.....
(1 mark)

b) Write 35% as a fraction.

Give your answer in its simplest form.

.....
(2 marks)

11. Write the following in ascending order.

0.3 $\frac{1}{4}$ 28% $\frac{6}{25}$ 0.295

.....
(2 marks)

12. At 7am the temperature was $-4^{\circ}C$

By 3pm the temperature had gone up by $10^{\circ}C$

(a) Write down the temperature at 3pm

.....
(1 mark)

At 9pm the temperature was $-2^{\circ}C$

By midnight the temperature had gone down by $7^{\circ}C$

(b) Write down the temperature at midnight.

.....
(1 mark)

13. a) Simplify $\frac{30x^2y^3}{6xy^2}$

.....
(2 marks)

b) Simplify $(2x^2y)^3$

.....
(2 marks)

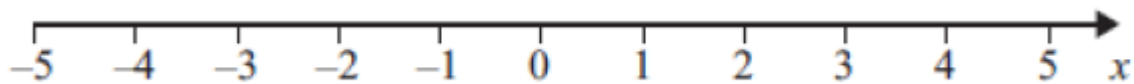
14. $a = 5b + 2c$

$b = 3$ and $c = -2$

Find the value of a

.....
(2 marks)

15. a) On the number line, show the inequality $-2 \leq x < 4$



(2 marks)

b) Solve $2x + 3 < 20$

.....
(2 marks)

16. a) Factorise $x^2 + 7x + 12$

.....
(2 marks)

b) Factorise $x^2 - 3x - 28$

.....
(2 marks)

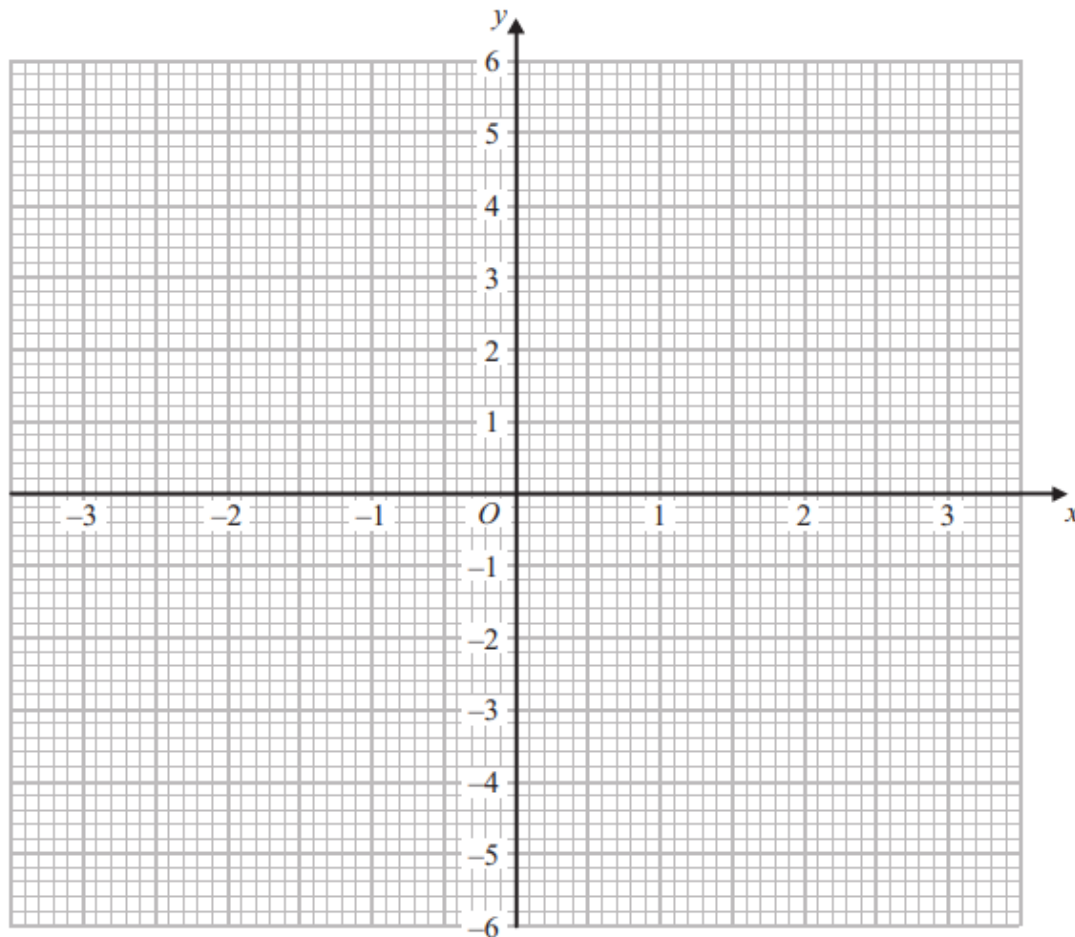
17. Solve $x^2 + 7x + 12 = 0$

.....
(2 marks)

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

x	-3	-2	-1	0	1	2
y		-3	-4			5

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



(4 marks)

19. a) Find an expression in terms of n for the sequence

$$3, 7, 11, 15, 19$$

.....
(2 marks)

b) Hence, find the 50th term of the sequence.

.....
(2 marks)

20. a) Change 350 centimetres into metres

.....
(1 mark)

b) Change 8.3m into mm

.....
(1 mark)

21. Work out 45% of 64

.....
(2 marks)

22. Increase 120 by 20%

.....
(2 marks)

23. Alice buys a pack of 10 drinks for £4.
She sells all 10 drinks for 50p each.
Work out Alice's percentage profit.

.....
(3 marks)

24. Share £240 in the ratio 5:7

.....
(2 marks)

25. Craig and Ian share some money in the ratio 8:3

Craig receives £32.

How much does Ian receive?

.....
(2 marks)

26. Emily and James share some money in the ratio 4:7

James receives £21 more than Emily.

How much do they share between them?

.....
(3 marks)

27. 3 tins of beans and 4 jars of jam weigh 2080g

The total weight off 5 tins of beans is 1800g

Work out the weight of 1 tin of beans and 1 jar of jam.

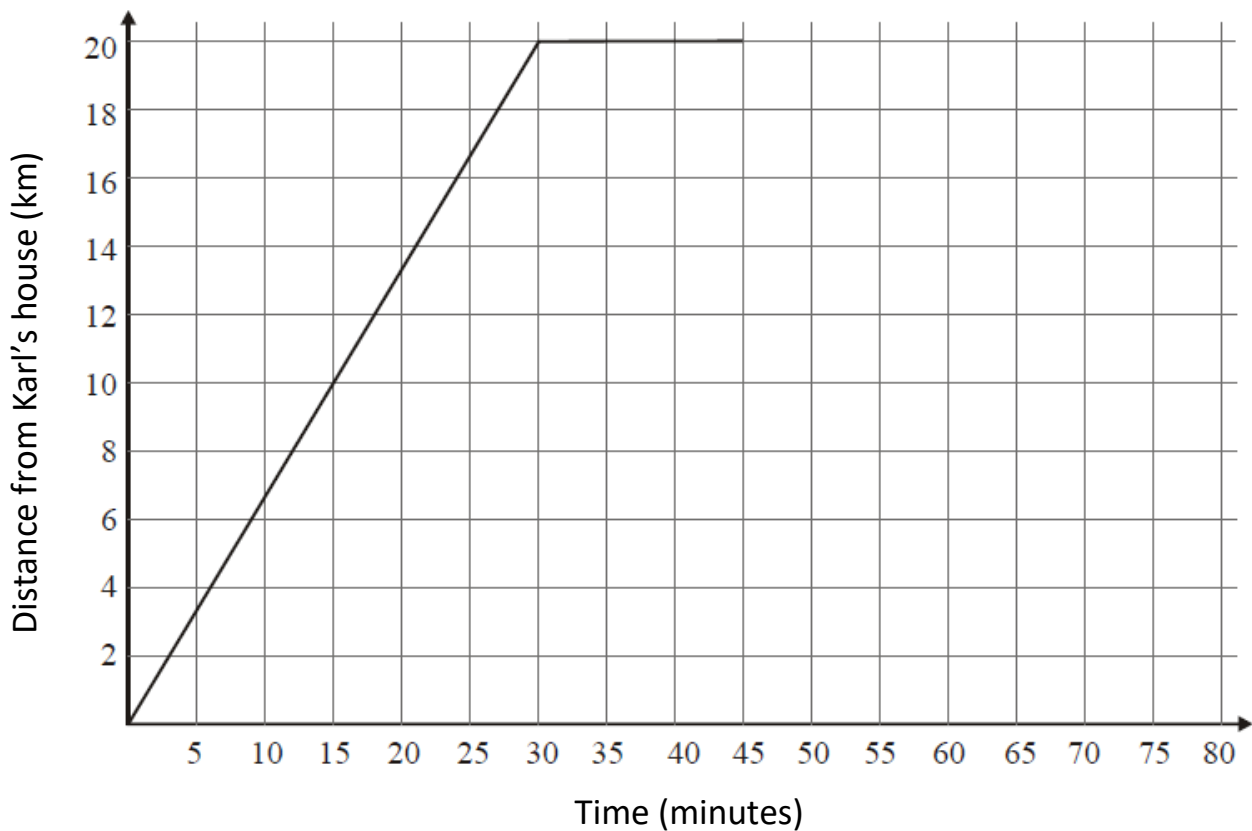
.....
(3 marks)

28. A car has to travel 30 miles along a motorway in 24 minutes.

Will the car have to travel faster than 70mph to get there in 24 minutes?

.....
(3 marks)

29. Here is part of Karl's journey from his house and back.
Here is the distance-time graph for part of his journey.



- a) Work out Karl's speed for the first 30 minutes of his journey.

.....
(2 marks)

Karl spends 15 minutes at the shops.

He then travels back to his house at 60km/h

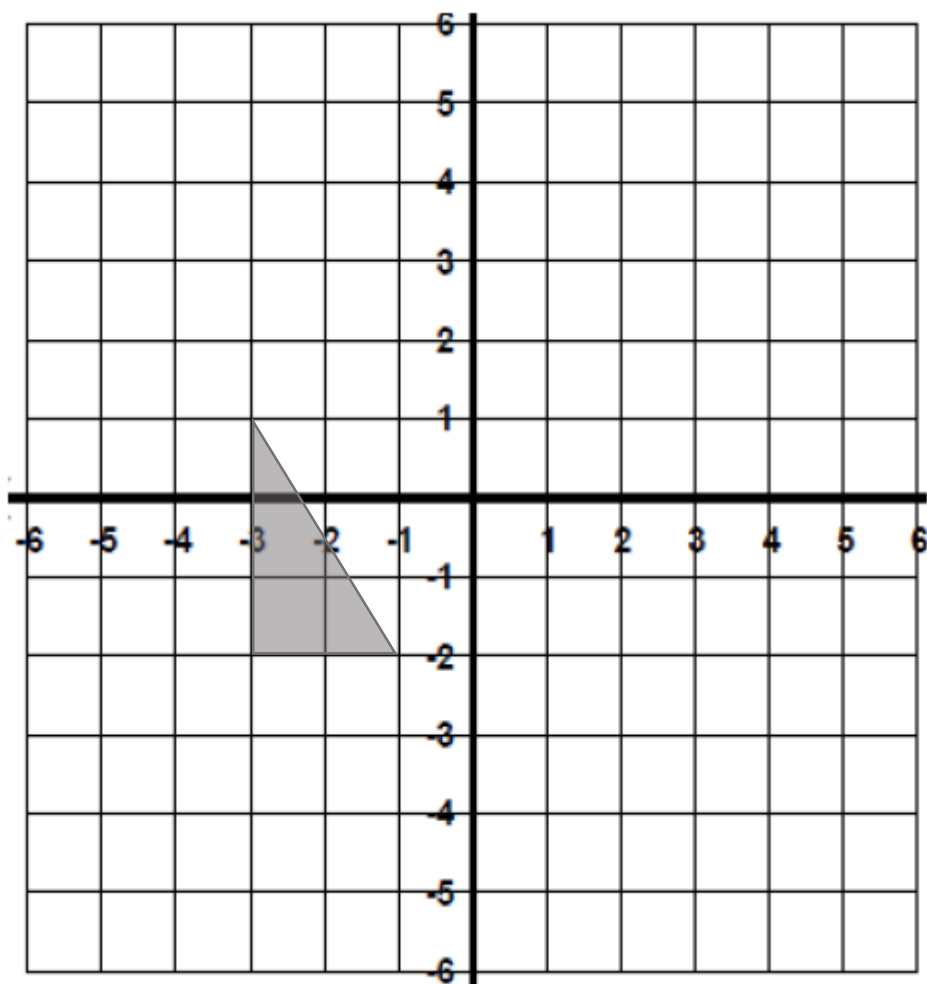
- b) Complete the travel graph.

(2 marks)

30. A rubber cube has side lengths of 4cm.
The density of rubber is $1.5g/cm^3$
Work out the mass of the cube.

.....
(3 marks)

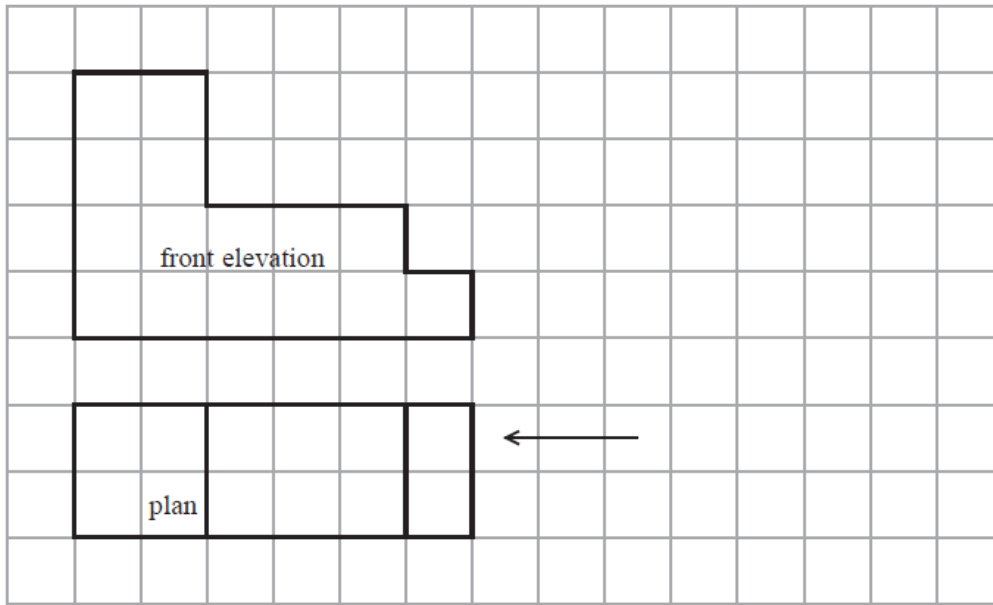
31.



On the grid, reflect the shaded shape in the line $x = 1$

(2 marks)

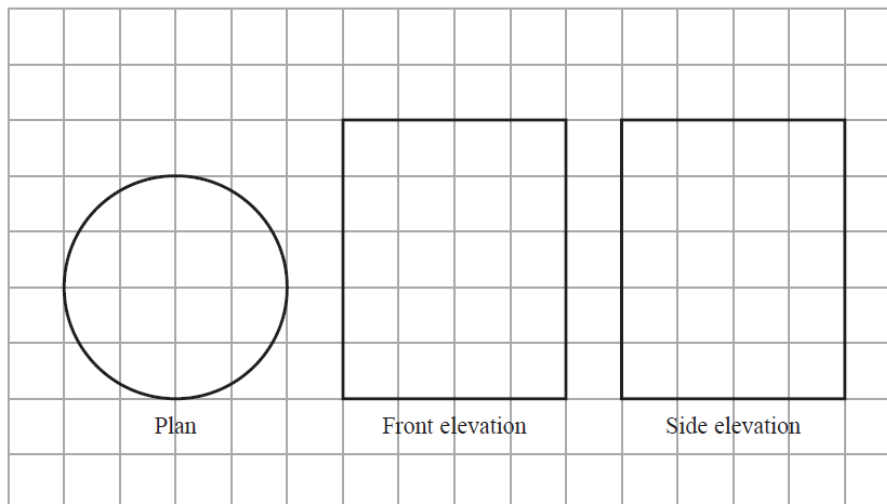
32. The front elevation and plan of a solid are shown on the grid.
On the grid, draw the side elevation from the direction of the arrow.



(2 marks)

33. The diagram shows the plan, front elevation, and side elevation of a solid shape drawn on a centimetre grid.

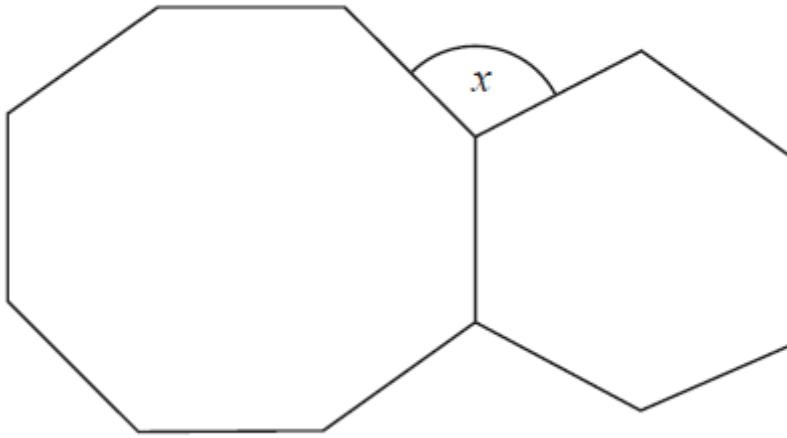
Draw a sketch of the solid shape. Give the dimensions of the solid on your sketch.



(2 marks)

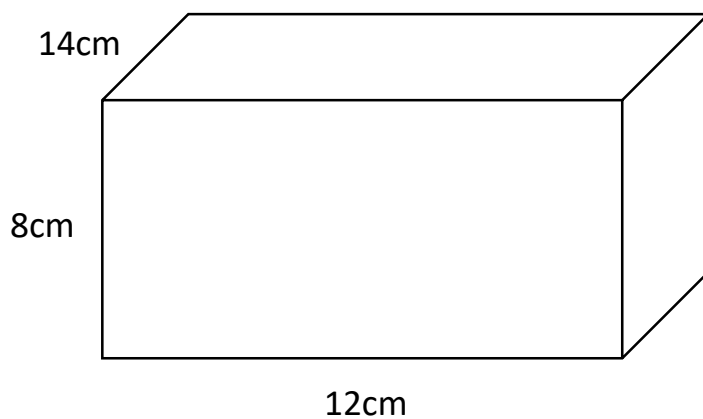
34. The diagram shows a regular octagon and a regular hexagon.

Work out the size of angle x .



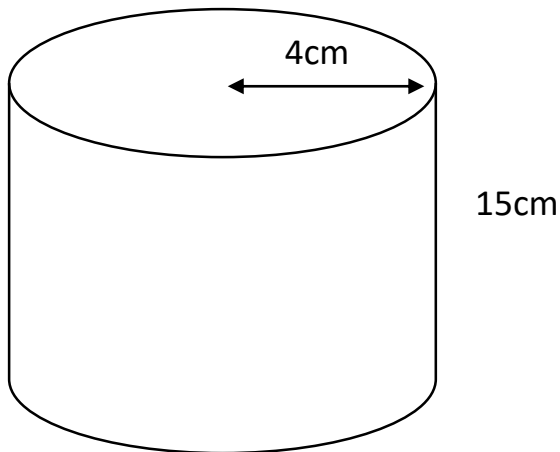
.....
(3 marks)

35. Work out the volume of the cuboid.



.....
(2 marks)

36. Work out the volume of the cylinder with a radius of 4cm and a height of 15cm. Give your answer in terms of π .



.....
(3 marks)

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

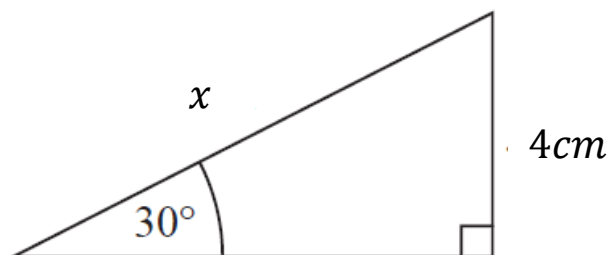
.....
(1 mark)

- b) Write down the value of $\cos 60^\circ$

.....
(1 mark)




38. Given that $\sin 30^\circ = 0.5$


Work out the value of x .



.....
(2 marks)

39. The pictogram shows the number of tins of paint sold in a shop on Monday, Tuesday and on Wednesday last week.

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Key:  represents 10 tins

On Thursday, 60 tins of paint were sold. On Friday 35 tins of paint were sold.

a) Use this information to complete the pictogram.

More tins of paint were sold on Thursday than on Monday.

b) How many more tins?

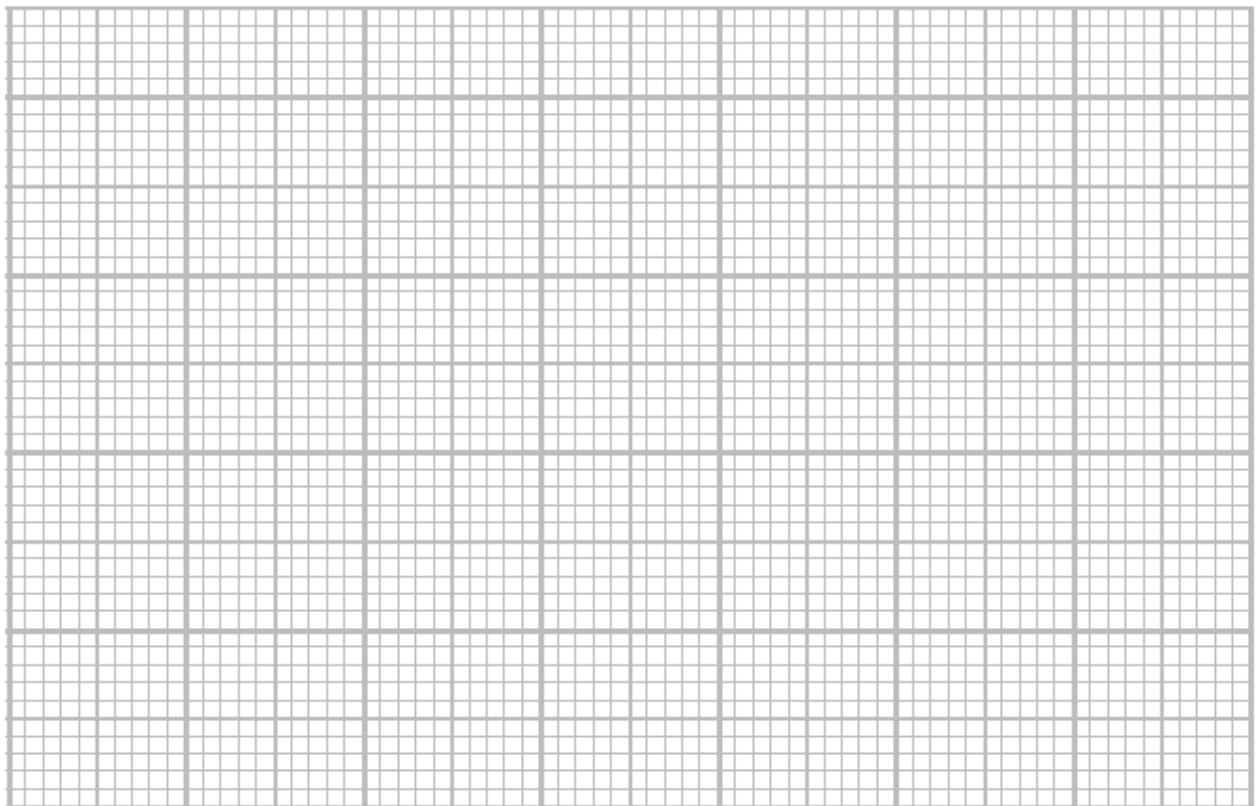
.....
(4 marks)

40. Harry and Shamus recorded the number of minutes they spent revising last week.

The table shows the information for their results.

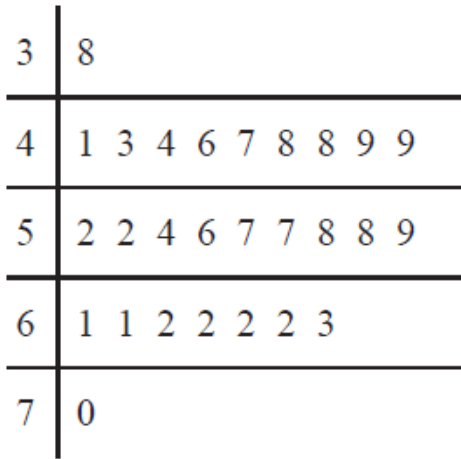
	Monday	Tuesday	Wednesday	Thursday
Harry	35	30	25	20
Shamus	10	20	25	40

Show this information in a suitable diagram.



(4 marks)

41. The stem and leaf diagram gives the information about the speeds of 27 cars.



Key:
3 | 8 means 38 miles per hour

a) Find the median speed.

.....
(1 mark)

b) Work out the range.

.....
(1 mark)

42. The table shows the probability of picking different counters.

Colour	Red	Blue	White	Black
Probability	0.2	0.5		

a) The probability of white and black is the same, complete the table.

b) There are 60 counters in the bag, how many are white?

.....
(4 marks)

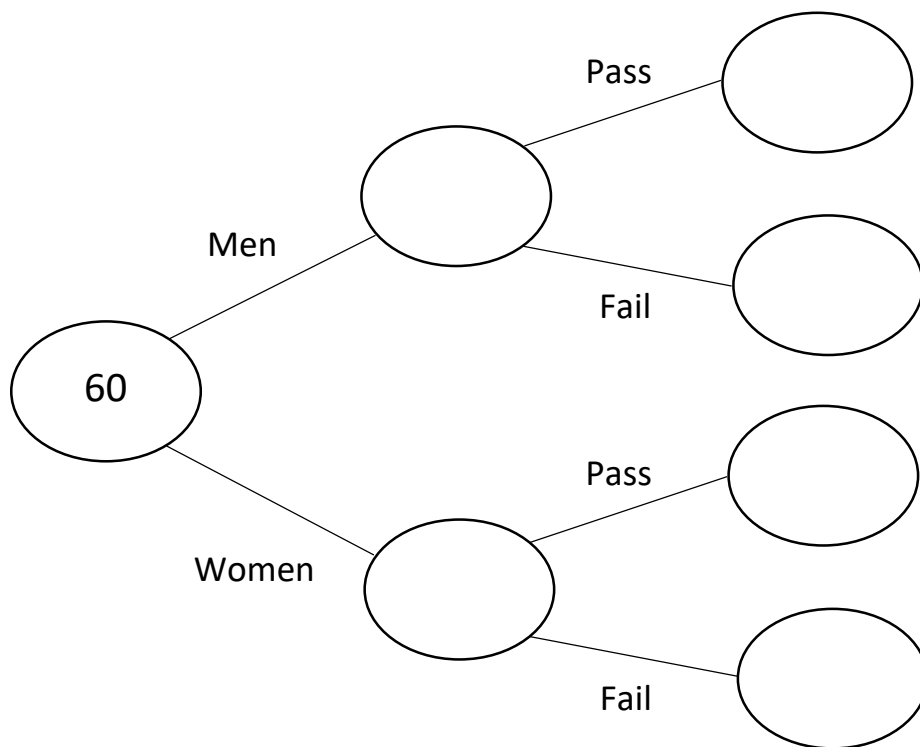
43. 60 people each took a driving test one day.

21 of these people were women.

18 of the 60 people failed their test.

27 of the men passed their test.

a) Use this information to complete the frequency tree.



b) One of the men is chosen at random.

Work out the probability that this man failed his test.

.....
(5 marks)

End of Paper