



Class
Maths

Video Solutions



PRACTICE PAPER FOR

AQA Paper 2H
(June 2026)

----- Disclaimer -----

This paper has been created based on some of the common paper 2/3 topics from previous years and also careful analysis of what topics have already appeared in paper 1. The paper should be excellent at helping students revise for exams, however it should not be relied upon as the basis for revision. The topics from this paper may well appear in the real exams, however there is absolutely no guarantee of this. Some topics may appear, some may not. Despite what you might see on social media it is not possible to “predict” the paper. This is usually what people say when they are selling you something...

The best way to prepare for the exams is to **revise all topics**.

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outside the
box

Answer **all** questions in the spaces provided.

1 Increase 620 by 85% **[2 marks]**

Answer _____

2 Factorise fully $6x^8 + 15x^4y$ **[2 marks]**

Answer _____

3 $n = -5$
Work out the value of $\sqrt{816 + n^2}$ **[2 marks]**

Answer _____





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4 A linear sequence starts

40 46 52 58 ...

Work out an expression for the n th term of the sequence.

[2 marks]

Answer _____

5 (a) 499 849 is a square number.

Work out the first square number greater than 500 000

[2 marks]

Answer _____

5 (b) n is a 2 -digit prime number.

The first digit of n is 8.

Work out two possible values for the second digit.

[2 marks]

Answer _____ and _____

12

Turn over ►





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6 The table shows information about the amount of time 80 adults spent exercising.

Time spent exercising, T (minutes)	Frequency		
$0 < T \leq 30$	13		
$30 < T \leq 60$	17		
$60 < T \leq 90$	29		
$90 < T \leq 120$	21		

6 (a) Work out an estimate for the mean time spent exercising. [3 marks]

Answer _____ minutes

6 (b) Which interval contains the median? You **must** show your working. [2 marks]

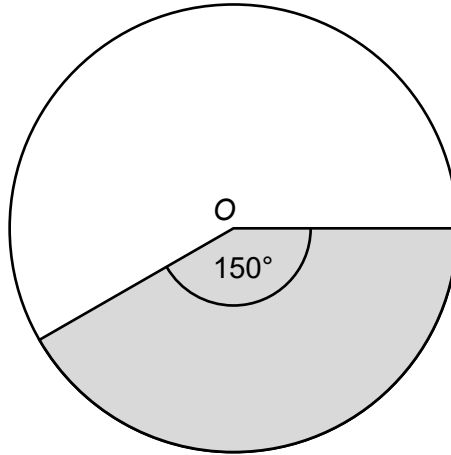
Answer _____ $< T \leq$ _____





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7 Here is a circle centre O .



The area of the shaded part of the circle is 200 cm^2

Work out the area of the unshaded part of the circle.

[3 marks]

Answer _____ cm^2

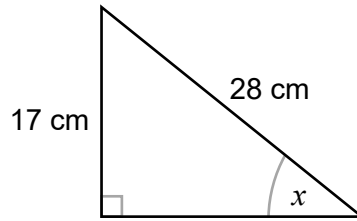
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8 Use trigonometry to work out the size of angle x .



Not drawn
accurately

[3 marks]

Answer _____ °

9 When rounded to 1 decimal place, $p = 9.8$
Complete the error interval for p .

[2 marks]

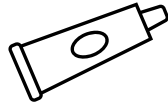
_____ $\leq p <$ _____





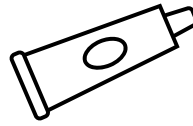
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10 Here is some information about two tubes of toothpaste.



Tube A

75 ml



Tube B

120 ml

price of tube A : price of tube B = 2 : 3

Which tube is better value for money?

Tube A

Tube B

Show working to support your answer.

[3 marks]

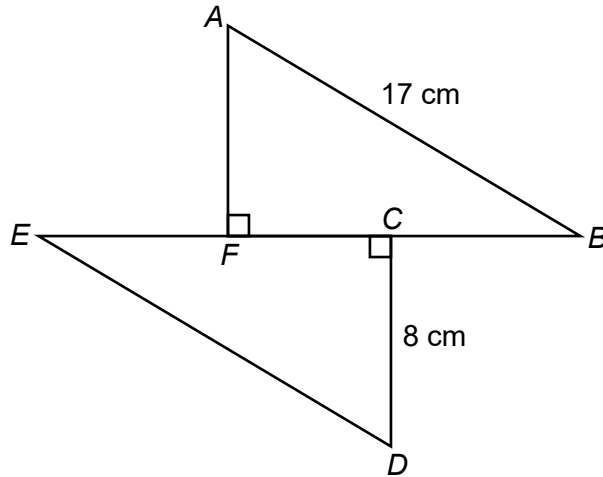
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12 The shape below is made from two congruent, right-angled triangles.



$AB = 17 \text{ cm}$
 $CD = 8 \text{ cm}$
 $EF = FC = CB$

Work out the perimeter of shape $ABCDEF$

[4 marks]

Answer _____ cm

$\frac{\quad}{8}$

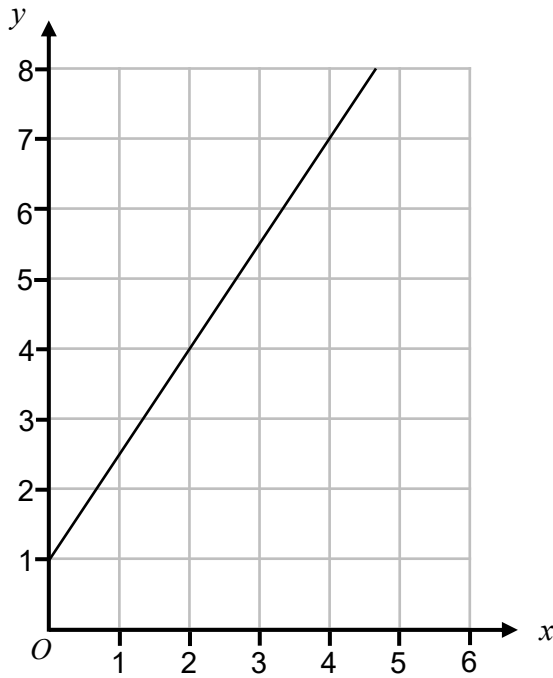
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13 Here is a straight line graph.



Work the gradient of the line.

[2 marks]

Answer _____





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14 $a : b = 5 : 1$

$$a : c = 6 : 1$$

Write $b : c$ in the form $n : 1$

[2 marks]

Answer _____ : 1

15 m and n are different positive integers.

The lowest common multiple of m and n is mn

Circle highest common factor of m and n

[1 mark]

1 m n $\frac{m}{n}$

$\frac{5}{5}$

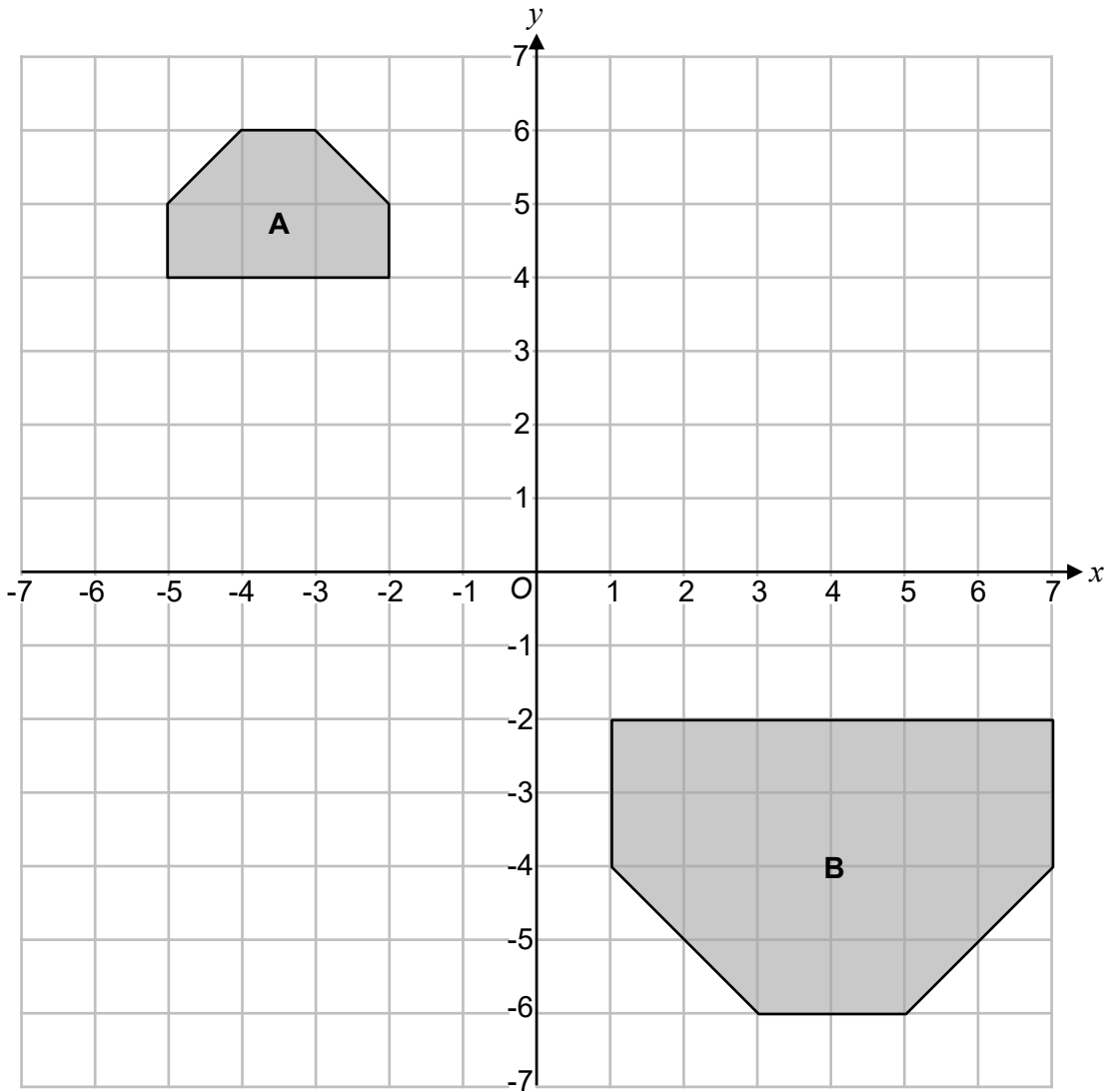
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16



Describe fully the single transformation that maps shape **A** onto shape **B**. [3 marks]





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17 A toy shop allows customers to customise their teddy bears.

When selecting a bear, customers choose from

- 18 different hats
- 20 different jackets
- 5 different scarves

Alfie wants a bear with a hat, a jacket and a scarf.
Leo wants a bear with a hat, a jacket but no scarf.

Work out how many more ways there are of Alfie choosing his bear than Leo choosing his.

[3 marks]

Answer _____

18 The equation of a circle is $x^2 + y^2 = 400$

18 (a) Write down the coordinates of the centre of the circle. [1 mark]

Answer (_____ , _____)

18 (b) Write down the radius of the circle [1 mark]

Answer _____

$\frac{\quad}{8}$

Turn over ►





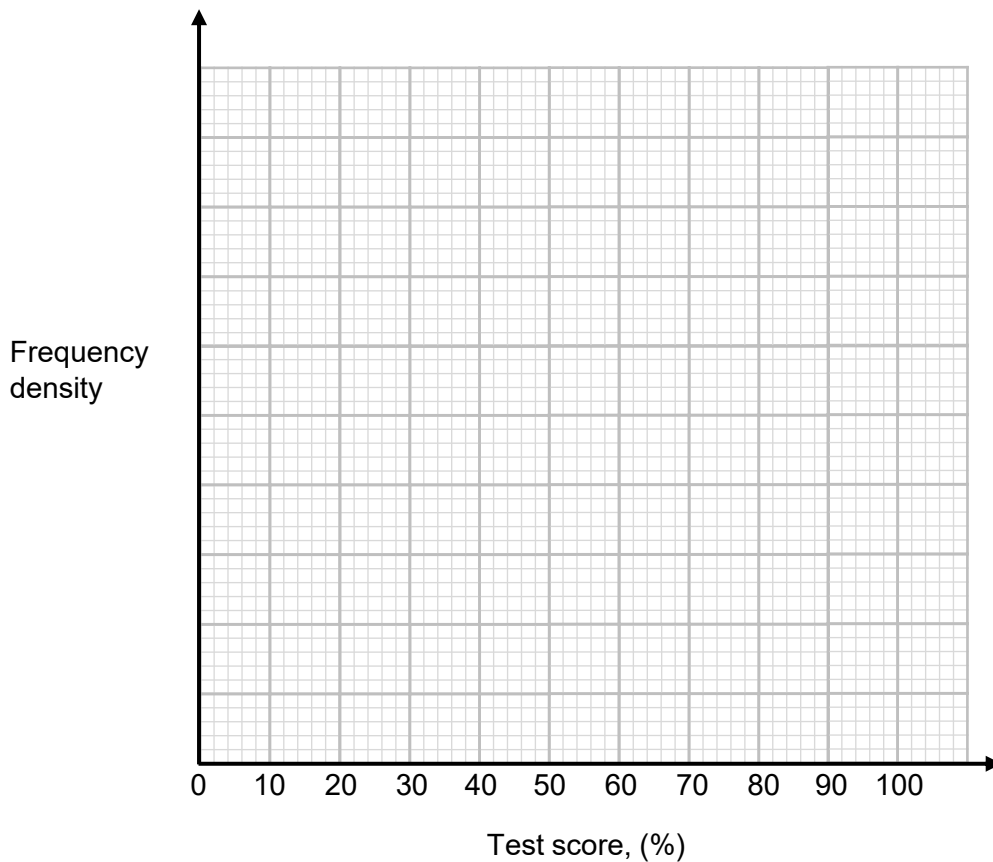
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19 The table below shows the test scores of the students in set 1.

Test scores, x (%)	Frequency	Class Width	
$0 \leq x < 40$	4		
$40 \leq x < 60$	7		
$60 \leq x < 70$	9		
$70 \leq x < 100$	12		

19 (a) Draw a histogram to represent the information.

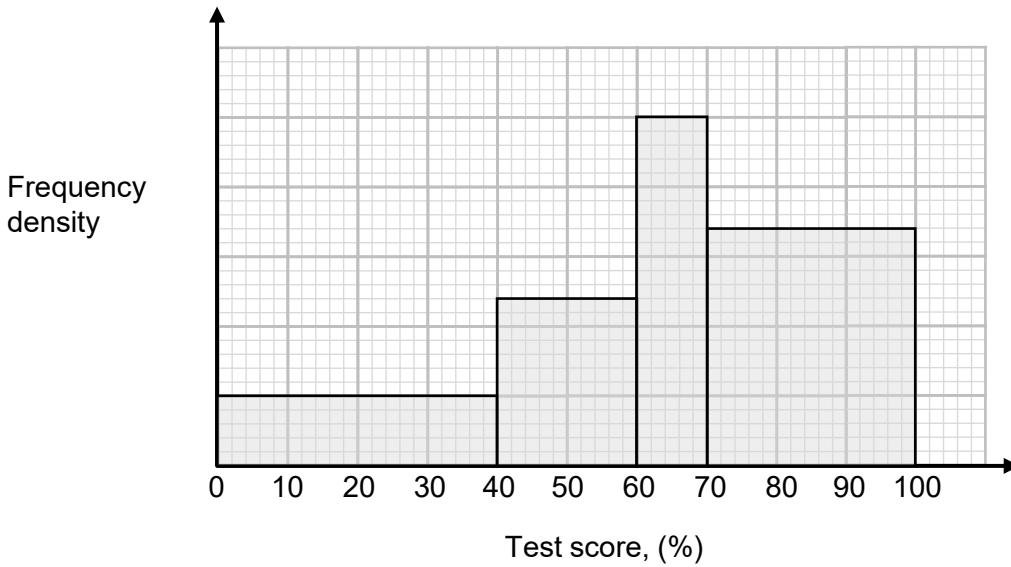
[3 marks]





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The histogram below shows the test scores for students in set 2.



19 (b) One of the students in set 2 is selected at random.

Work out the probability that this student scored more than 70%

[3 marks]

Answer _____

6

Turn over ►





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20 A car rally race consists of three stages, A, B and C.

The table below shows information about the distance and time taken for the winning car.

Stage	A	B	C
Distance (miles)	30	28	22
Time taken (minutes)	$4x + 2$	$4x - 4$	$2x + 7$

The total time taken for the winning car to complete all three stages was 90 minutes.

Work out the stage where the winning car had the greatest average speed.
Give this speed of this stage in miles per hour. **[5 marks]**

Stage _____ had the greatest average speed of _____ mph





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21 y is directly proportional to x^3
 $y = 144$ when $x = 6$

21 (a) Work out an equation connecting y and x . **[3 marks]**

Answer _____

21 (b) Work out the value of x when $y = 2.25$ **[2 marks]**

Answer _____

$\frac{\quad}{10}$

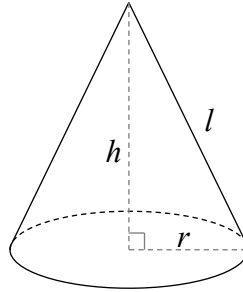
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23 Here is a cone.



The radius of the cone, r , is 5 cm (to the nearest centimetre)

The perpendicular height of the cone, h , is 20 cm (to the nearest centimetre)

Surface area of cone = $\pi r^2 + \pi r l$ where r is the radius and l is the slant height

Work out the upper bound for the surface area of the cone.
Give your answer to 3 decimal places.

[5 marks]

Answer _____ cm²

$\frac{\quad}{10}$



