

Surname
First name(s)

Centre Number

Candidate Number
0

**REVISE**  
.wales

**GCSE**

R.WM-MNF-U3-001

**MOCK PAPER A**



R.WM-MNF-U3-001

**MATHEMATICS AND NUMERACY  
(DOUBLE AWARD)  
UNIT 3: CALCULATOR-ALLOWED  
FOUNDATION TIER**

1 hour 45 minutes

**ADDITIONAL MATERIALS**

A calculator will be required for this examination.

A ruler, a protractor and a pair of compasses may be required.

**INSTRUCTIONS TO CANDIDATES**

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

You may use a pencil for graphs and diagrams only.

Write your name, centre number and candidate number in the spaces at the top of this page.

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

If you run out of space, use the additional page at the back of the booklet. Question numbers must be given for all work written on the additional page.

Take  $\pi$  as 3.14 or use the  $\pi$  button on your calculator.

**INFORMATION FOR CANDIDATES**

You should give details of your method of solution when appropriate.

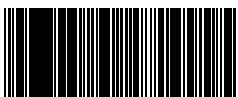
Unless stated, diagrams are not drawn to scale.

Scale drawing solutions will not be acceptable where you are asked to calculate.

The number of marks is given in brackets at the end of each question or part-question.

In question 5, the assessment will take into account the quality of your linguistic and mathematical organisation, communication and accuracy in writing.

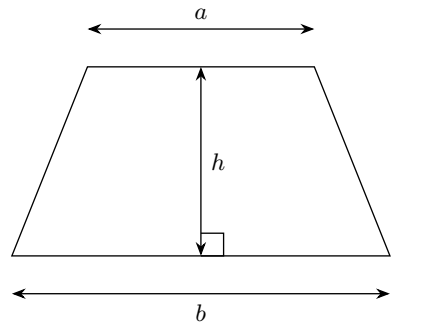
For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	5	
2.	8	
3.	7	
4.	8	
5.	9	
6.	7	
7.	8	
8.	11	
9.	12	
<b>Total</b>	<b>75</b>	



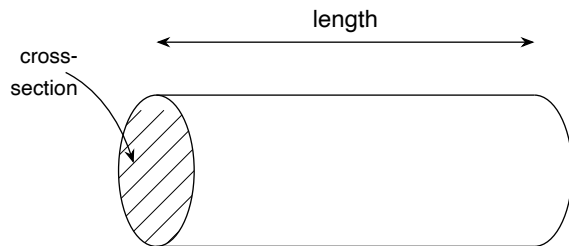
MOCK-2026-001-FU3

### Formula List – FOUNDATION TIER

**Area of trapezium** =  $\frac{1}{2}(a + b)h$

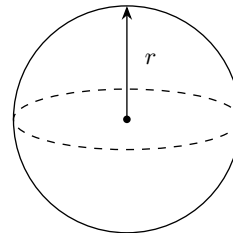


**Volume of prism** = area of cross-section  $\times$  length



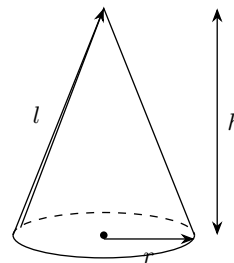
**Volume of sphere** =  $\frac{4}{3}\pi r^3$

**Surface area of sphere** =  $4\pi r^2$



**Volume of cone** =  $\frac{1}{3}\pi r^2 h$

**Curved surface area of cone** =  $\pi r l$

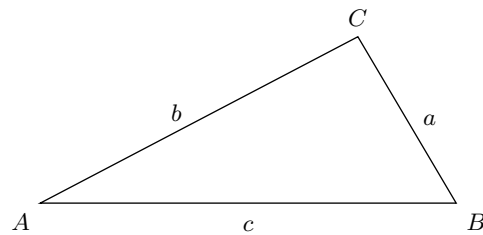


**In any triangle ABC**

**Sine rule**  $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

**Cosine rule**  $a^2 = b^2 + c^2 - 2bc \cos A$

**Area of triangle** =  $\frac{1}{2}ab \sin C$



**The Quadratic Equation**

The solutions of  $ax^2 + bx + c = 0$  where  $a \neq 0$  are given by

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

**Annual Equivalent Rate (AER)**

AER, as a decimal, is calculated using the formula  $(1 + \frac{i}{n})^n - 1$ , where  $i$  is the nominal interest rate per annum as a decimal and  $n$  is the number of compounding periods per annum.



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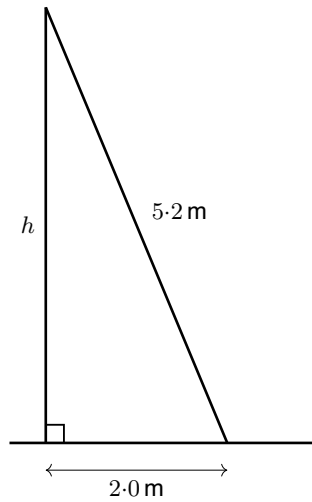
Percentage increase = ..... %





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Volume = ..... cm<sup>3</sup>

3. A ladder of length 5.2 m leans against a vertical wall. The foot of the ladder is 2.0 m from the base of the wall, on horizontal ground.

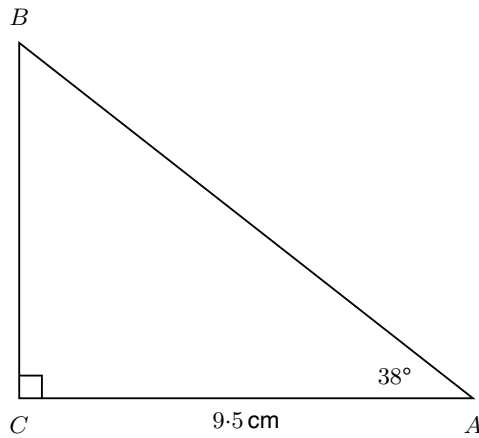


*Diagram not drawn to scale*

- (a) Calculate the height,  $h$ , reached by the top of the ladder up the wall. [4]  
Give your answer correct to 1 decimal place.



4. A right-angled triangle  $ABC$  is shown below. The right angle is at  $C$ . Angle  $BAC = 38^\circ$  and  $AC = 9.5$  cm.



*Diagram not drawn to scale*

- (a) Calculate the length of  $BC$ . [4]  
Give your answer correct to 1 decimal place.



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Angle  $PQR =$  .....



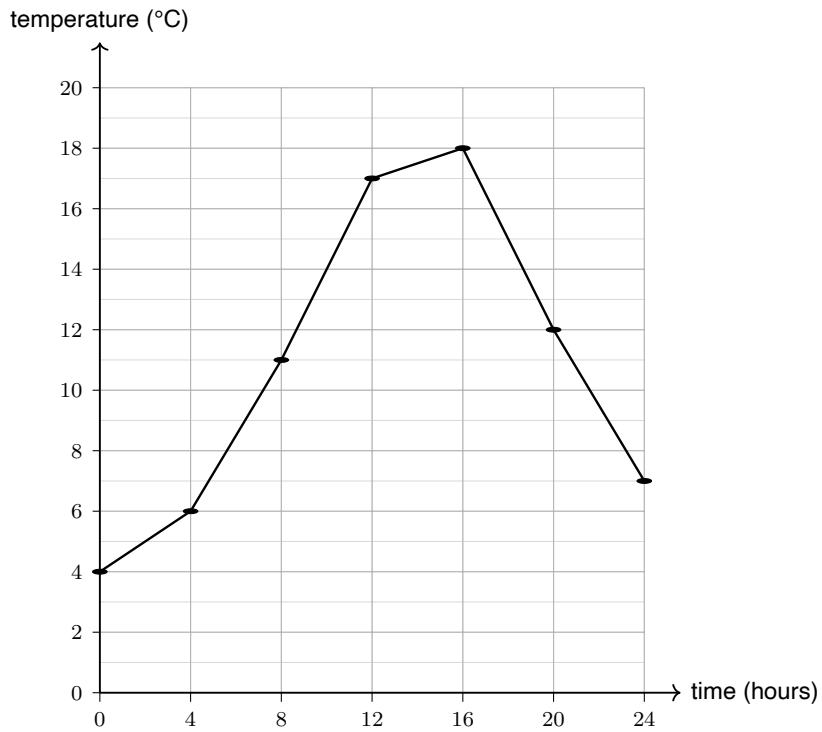








The line graph below shows the temperature (in °C) recorded in a town at four-hour intervals over one day.



(b) Use the line graph to calculate the rise in temperature between 08:00 and 16:00. [3]

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Rise in temperature = ..... °C

- (c) A newspaper draws a bar chart of the same data but starts the vertical axis at 10 °C [2] instead of 0 °C.  
Explain why this could be misleading to a reader.

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Estimated mean = ..... minutes

(c) Write down the modal class. [1]

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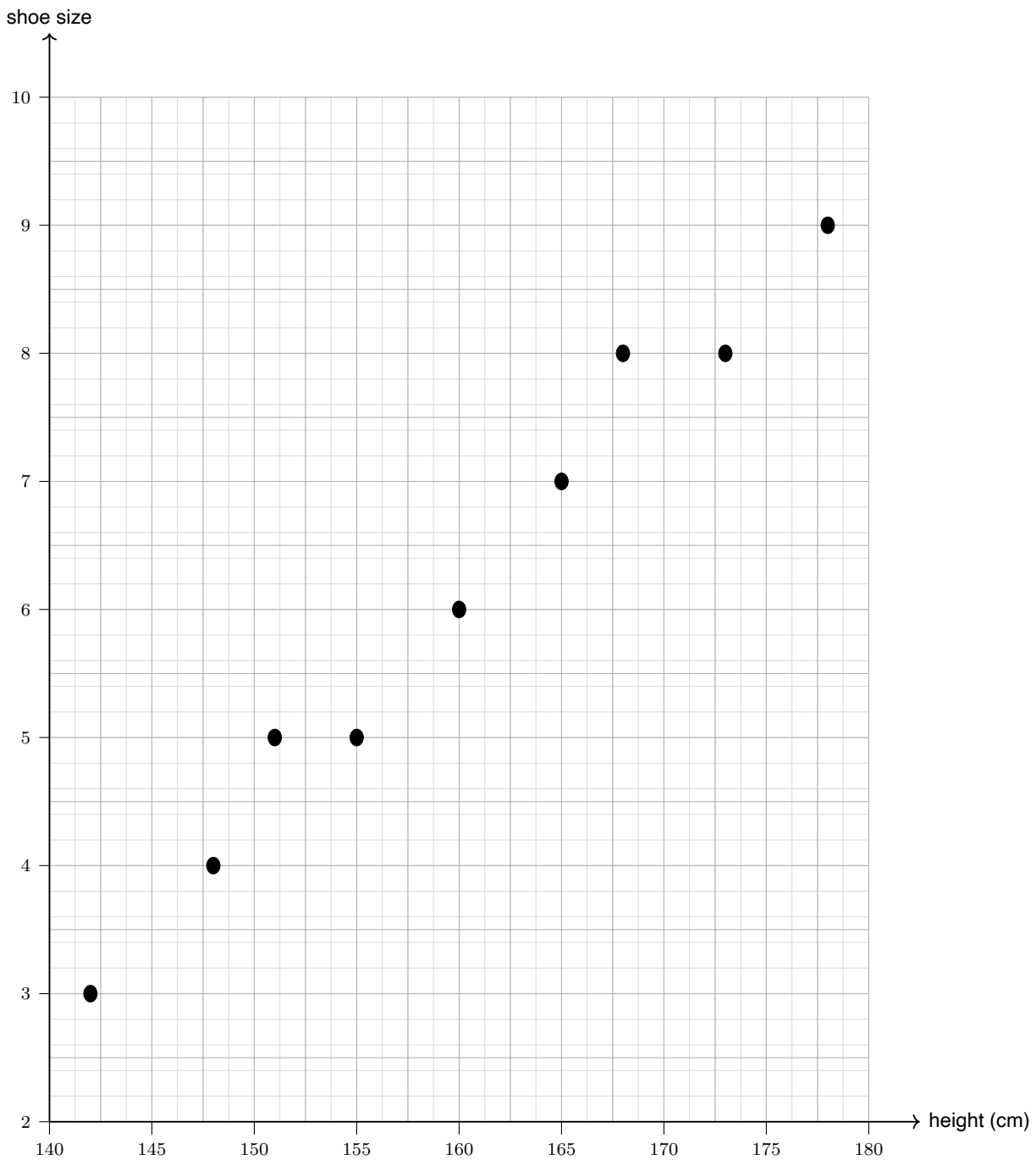
Modal class = .....

(d) Write down the class that contains the median. [1]

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Median class = .....

9. The scatter graph below shows the height (in cm) and the shoe size of 9 Year-10 pupils.



(a) A tenth pupil has height 158 cm and shoe size 6. Plot this point on the scatter graph [1] above.

(b) Describe the type of correlation shown by the scatter graph. [1]

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Correlation = .....

(c) Draw a line of best fit on the scatter graph above. [1]

(d) Use your line of best fit to estimate the shoe size of a pupil whose height is 170 cm. [2]

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Estimated shoe size = .....



