

Surname
First name(s)

Centre Number

Candidate Number
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REVISE
.wales

GCSE

R.WM-MNF-U3-002

MOCK PAPER B



R.WM-MNF-U3-002

**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 π as 3.14 or use the π button on your calculator.

INFORMATION FOR CANDIDATES

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

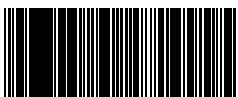
Unless stated, diagrams are not drawn to scale.

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.

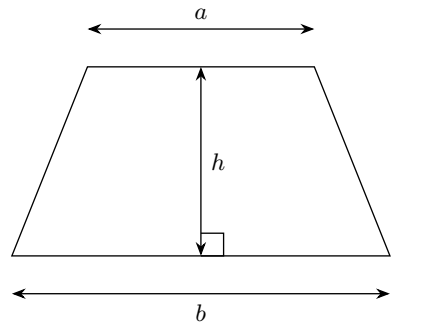
For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	5	
2.	8	
3.	7	
4.	8	
5.	9	
6.	7	
7.	8	
8.	11	
9.	12	
Total	75	



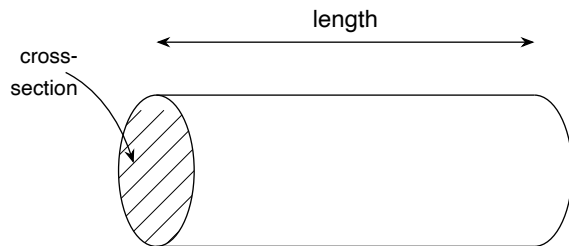
MOCK-2026-002-FU3

Formula List – FOUNDATION TIER

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

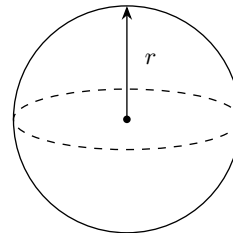


Volume of prism = area of cross-section \times length



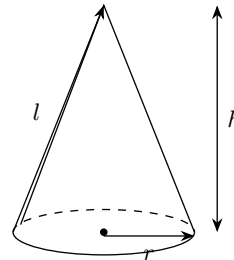
Volume of sphere = $\frac{4}{3}\pi r^3$

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



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

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

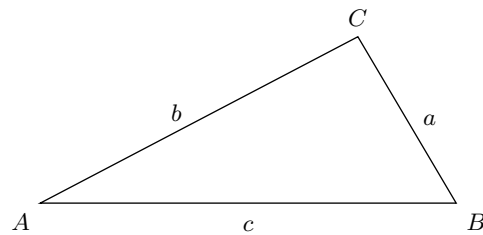


In any triangle ABC

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 decrease = %

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Volume = cm³

Examiner only

RWMNF-U3 02

3. A rectangular television screen has a width of 80 cm and a height of 45 cm.

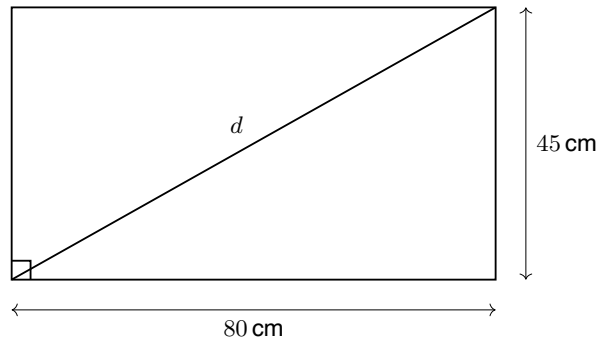


Diagram not drawn to scale

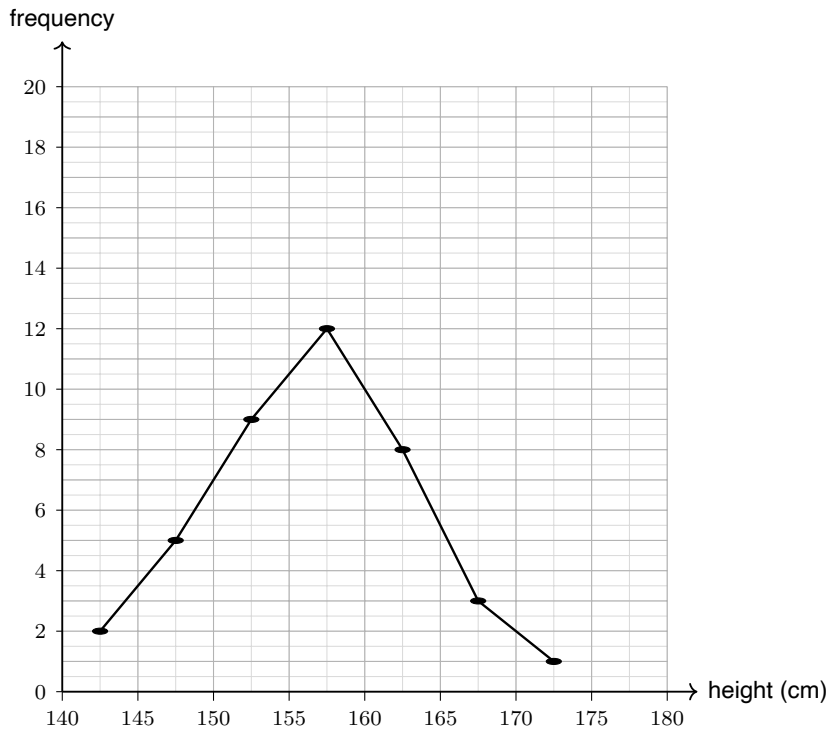
- (a) Calculate the length, d , of the diagonal of the television screen.
Give your answer correct to 1 decimal place.

[4]

$d = \dots\dots\dots$ cm

$YZ = \dots\dots\dots$ cm

The frequency polygon below shows the heights (in cm) of 40 pupils.



(b) Use the frequency polygon to write down the modal class of the pupils' heights. [3]

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Modal class = cm

- (c) A magazine draws a bar chart from the same height data but cuts the vertical axis so [2] that it starts at a frequency of 8 instead of 0.
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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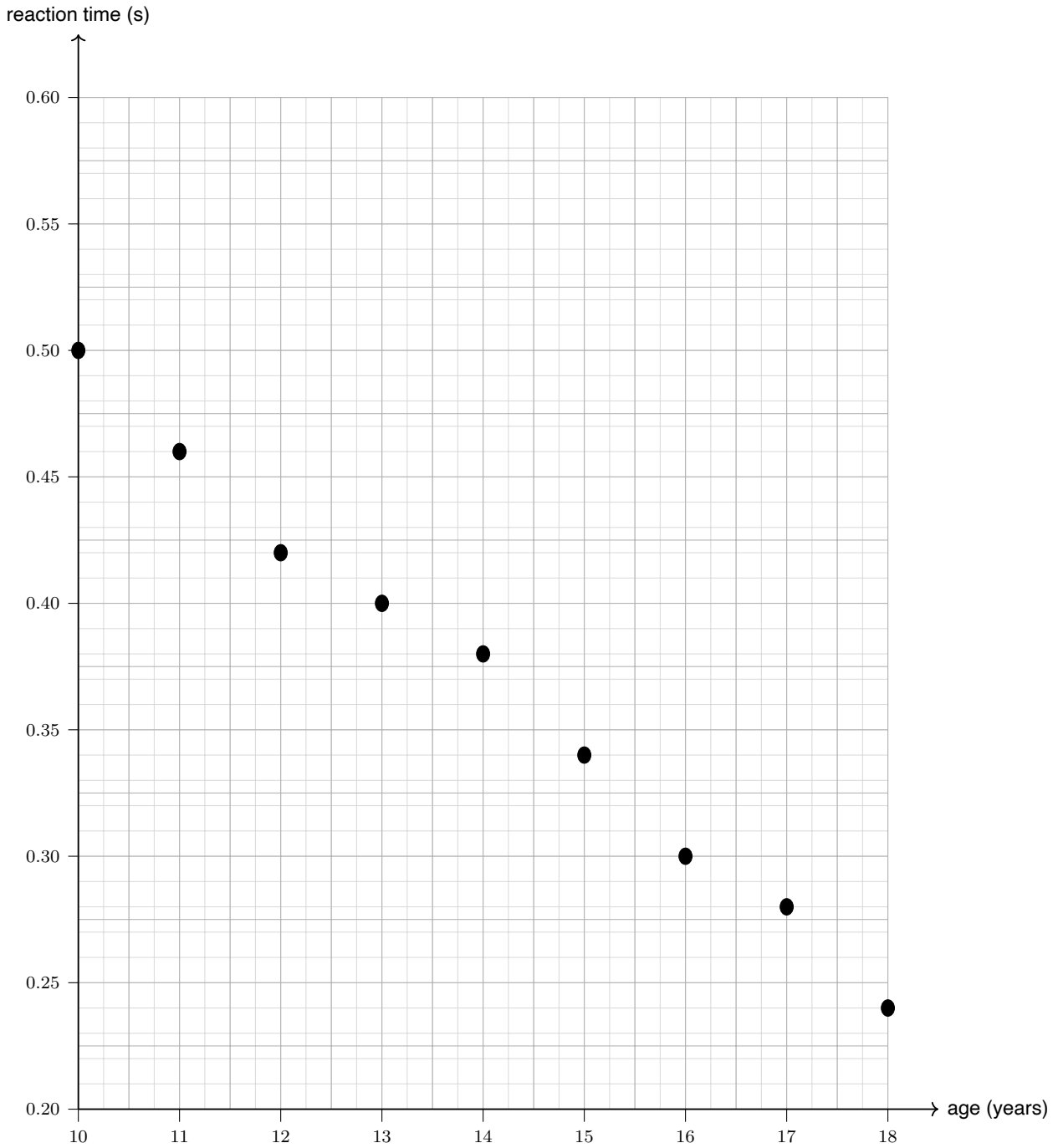
Modal class =

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

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Median class =

9. The scatter graph below shows the age (in years) and the reaction time (in seconds) of 9 people.



(a) A tenth person, aged 13 years, has a reaction time of 0.44 seconds. Plot this point on [1]
the scatter graph 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 reaction time of a person aged 16 years. [2]

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Estimated reaction time = s

