

Centre No.						Paper Reference					Surname	Initial(s)	
Candidate No.									/			Signature	

Paper Reference(s)

Examiner's use only

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Team Leader's use only

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Edexcel GCSE

Mathematics – Two Tier

Stage 2 – Section B (Non-Calculator)

Higher Tier

Specimen Paper

Time: 30 minutes



Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
Tracing paper may be used.

Items included with question papers

Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature. Check that you have the correct question paper.

Answer ALL the questions. Write your answers in the spaces provided in this question paper.

You must NOT write on the formulae page. Anything you write on the formulae page will gain NO credit.

If you need more space to complete your answer to any question, use additional answer sheets.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. (2).

There are 7 questions in this question paper. The total mark for this section is 25.

There are 8 pages in this question paper. Any blank pages are indicated.

Calculators must not be used.

Advice to Candidates

Show all stages in any calculations.

Work steadily through the paper. Do not spend too long on one question.

If you cannot answer a question, leave it and attempt the next one.

Return at the end to those you have left out.

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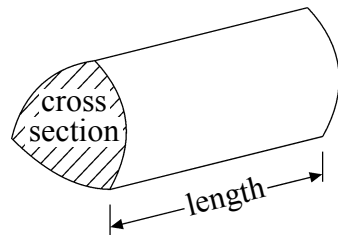
Turn over

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Formulae: Higher Tier

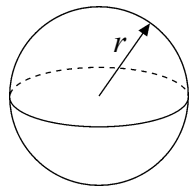
**You must not write on this formulae page.
Anything you write on this formulae page will gain NO credit.**

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



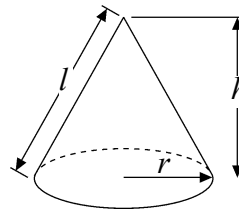
Volume of sphere = $\frac{4}{3}\pi r^3$

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

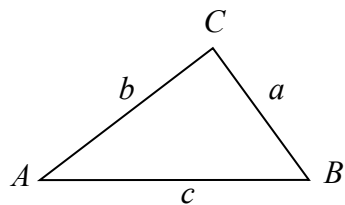


Volume of cone = $\frac{1}{3}\pi r^2 h$

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



In any triangle ABC



The Quadratic Equation

The solutions of $ax^2 + bx + c = 0$

where $a \neq 0$, are given by

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

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 = $\frac{1}{2}ab \sin C$



SECTION B

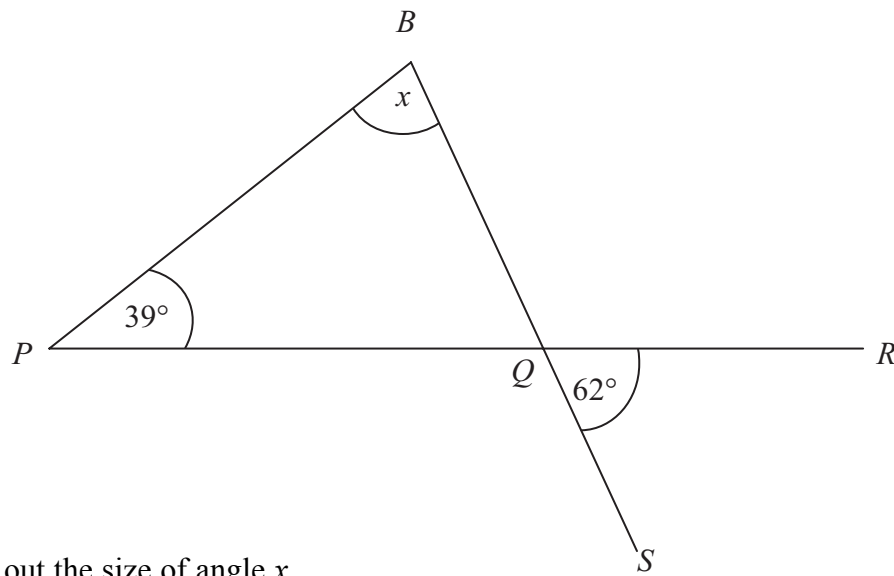
Answer ALL SEVEN questions.

Write your answers in the spaces provided.

You must NOT use a calculator for this section.

You must write down all stages in your working.

1.



Work out the size of angle x .
Give reasons for your answer.

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

$x = \dots\dots\dots^\circ$
(Total 3 marks)

Q1

2. Given that

$$3600 \times 5.8 = 20\,880$$

Write down the value of

(i) 36×0.58

.....

(ii) $2.088 \div 36$

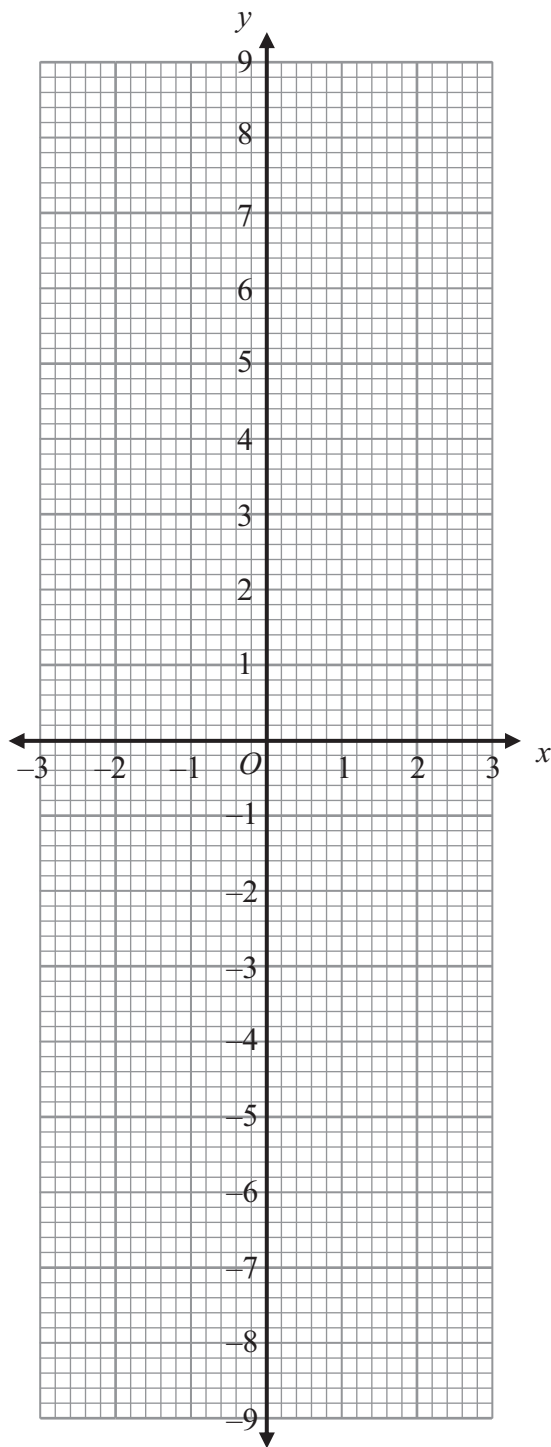
.....
(Total 2 marks)

Q2



Leave blank

3. (a) On the grid, draw the graph of $y = 2x - 3$
Use values of x between -3 and $+3$



(3)

- (b) On the same grid draw the graph of $y = 2x + 1$

(1)

Q3

(Total 4 marks)



Leave blank

4.

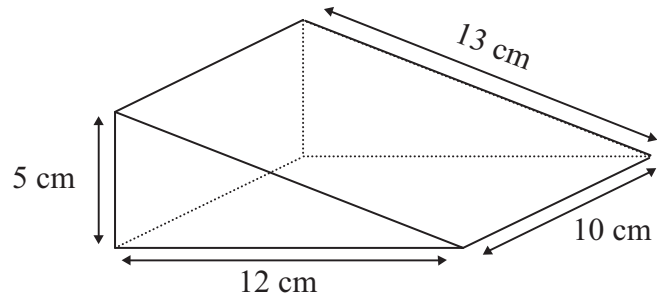


Diagram NOT accurately drawn

Work out the surface area of the triangular prism.

..... cm²
(Total 3 marks)

Q4

5. The distance of the Earth from the Sun is 93 000 000 miles.

(a) Write the number 93 000 000 in standard form.

.....
(1)

One Angstrom unit is 3.94×10^{-6} inches.

(b) Write this as an ordinary number.

.....
(1)

(Total 2 marks)

Q5



Leave
blank

6. (a) Factorise

(i) $6x^3 + 8x^2$

.....

(ii) $y^2 - 3y - 10$

.....

(4)

(b) (i) Factorise completely $p^2 - q^2$

.....

(ii) Hence or otherwise work out the value of $69^2 - 31^2$

.....

(3)

Q6

(Total 7 marks)

7. (a) Work out the value of $64^{\frac{2}{3}}$

.....

(2)

(b) Find the value of $\sqrt{\frac{(7+\sqrt{5})(7-\sqrt{5})}{11}}$

.....

(2)

Q7

(Total 4 marks)

TOTAL FOR SECTION B: 25 MARKS

END



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