

Wednesday 11 January 2012 – Morning

GCSE MATHEMATICS B (MEI)

B291A Paper 1 Section A (Foundation Tier)

Candidates answer on the Question Paper.

OCR supplied materials:
None

Other materials required:

- Geometrical instruments
- Tracing paper (optional)

Duration: 45 minutes



Candidate forename		Candidate surname	
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Centre number										Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Show your working. Marks may be given for a correct method even if the answer is incorrect.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.

INFORMATION FOR CANDIDATES

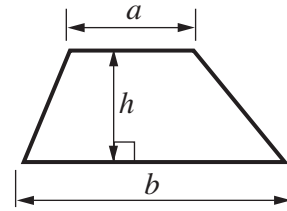
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is **36**.
- This document consists of **8** pages. Any blank pages are indicated.

WARNING

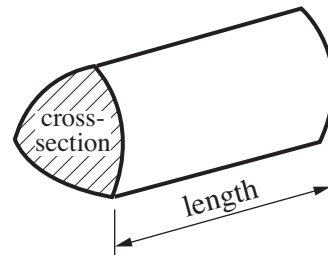
No calculator can be used for Section A of this paper

Formulae Sheet: Foundation Tier

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



$$\text{Volume of prism} = (\text{area of cross-section}) \times \text{length}$$



PLEASE DO NOT WRITE ON THIS PAGE

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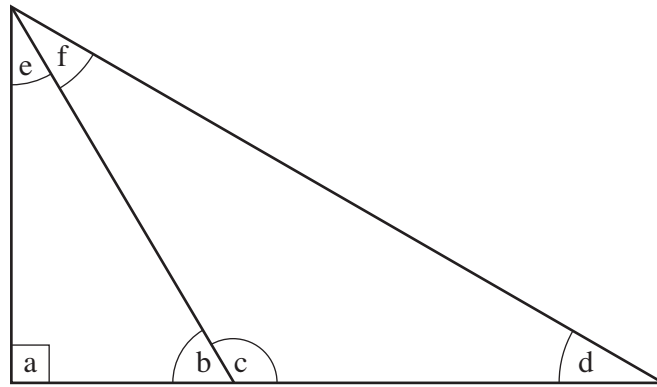
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1



Complete the following statements. Use letters from the diagram.

Angle is an acute angle.

Angle is a right angle.

Angle is an obtuse angle because

..... [4]

2 Complete the table using equivalent fractions and decimals.




Fraction	Decimal
$\frac{1}{2}$	0.5
$\frac{9}{10}$	
$\frac{3}{4}$	
	0.3
	0.07

[4]

- 3 Holly asked her friends about their school holiday activities. Her results are summarised in the pictogram.

Fill in the key and the three spaces in the pictogram.

	represents people
---	-------------------------

Activity		Frequency
Sledging		16
Skiing		
Building snowmen		8
Having snowball fights		

[4]

- 4 Work out the following.

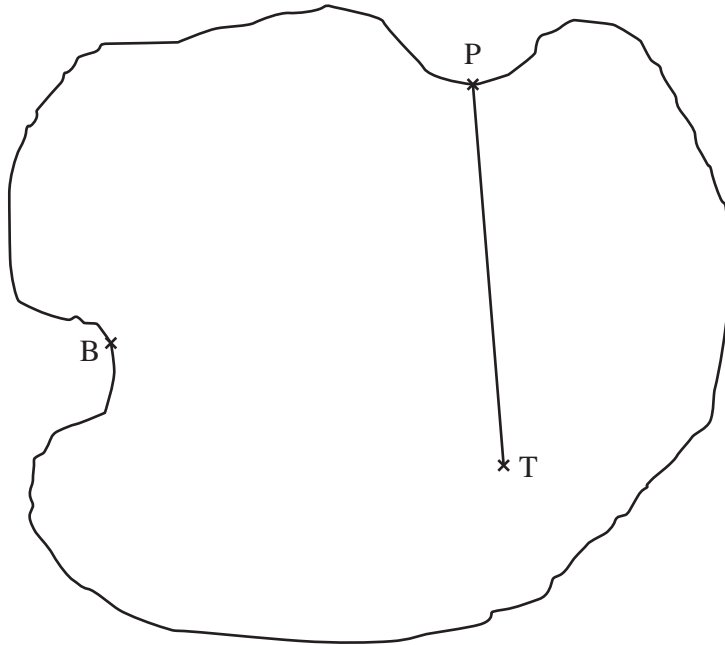
(a) $1473 + 354$

(a) [2]

(b) $621 - 304$

(b) [2]

- 5 The map shows an island with a port, P, a town, T, and a beach, B.
The scale of the map is 1 cm represents 2 km.



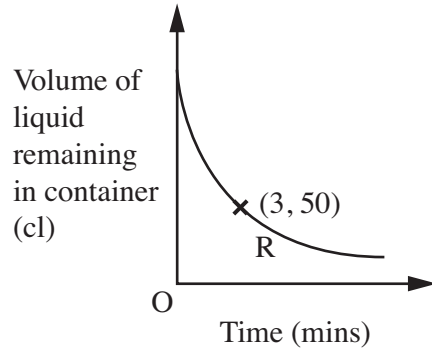
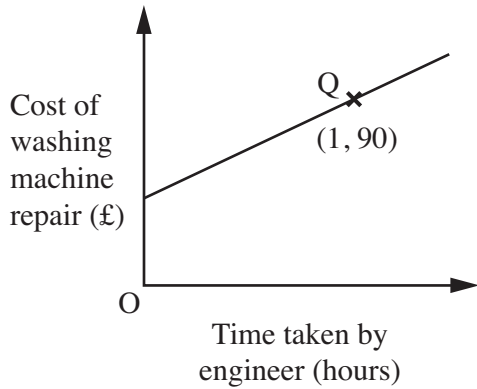
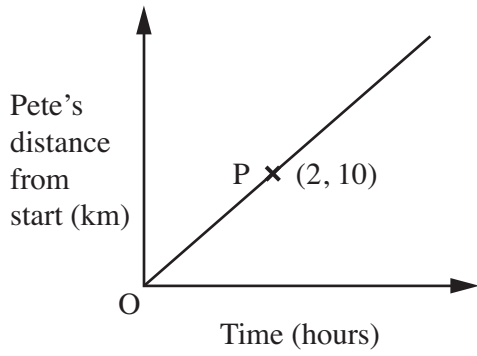
- (a) What is the actual distance from the town to the beach?

(a) km [2]

- (b) A viewpoint, V, lies on the straight road between the town and the port.
It is 7 km from the town.

Mark the point V on the map.

[2]



Use the graphs to complete these statements.
The first one has been done for you.

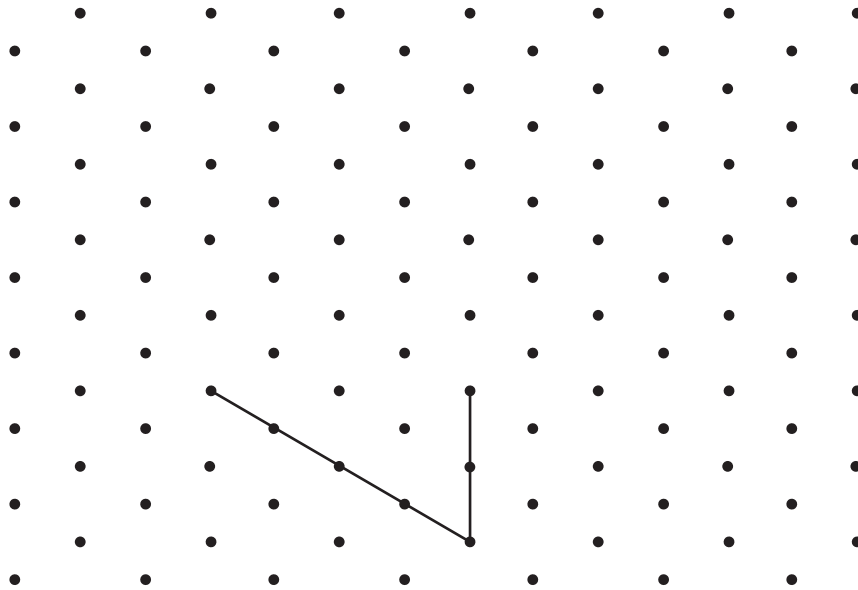
The point P tells me that after 2 hours, Pete is 10 km from the start.

The point Q tells me that
..... [2]

The point R tells me that
..... [2]

7 A cuboid has length 5 cm, width 4 cm and height 2 cm.

(a) Complete the isometric drawing of the cuboid.



[2]

(b) Work out the volume of the cuboid.

(b) cm³ [2]

8 Estimate the following.

$$\frac{63 \times 111}{49}$$

Show clearly the values you use.

..... [2]

TURN OVER FOR QUESTION 9

9 (a) Solve this equation.

$$2(x + 3) = 11$$

(a) [3]

(b) Simplify.

$$\frac{y^5}{y^2}$$

(b) [1]

(c) Rearrange this formula to make y the subject.

$$x = 3y + 5$$

(c) $y =$ [2]