MATHEMATICS B (MEI)
PAPER 1 SECTION A
FOUNDATION TIER

1968/2311A

Specimen Paper 2003

Additional materials: Geometrical instruments
                          Tracing paper (optional)

Candidates answer on the question paper.
Calculators are **not** allowed.

TIME 45 minutes

Candidate Name		Centre Number	Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in the space above.
- Write your Centre number and Candidate number in the boxes above.
- Answer **all** the questions.
- Write your answers, in blue or black ink, in the spaces provided on the question paper.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- Show all your working. Marks may be given for working which shows that you know how to solve the problem, even if you get the answer wrong.

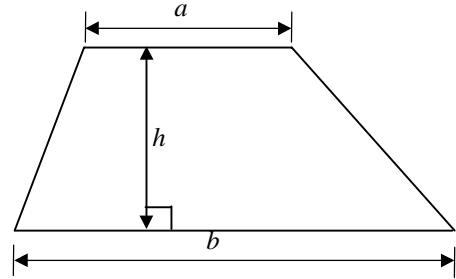**YOU ARE NOT ALLOWED TO USE A CALCULATOR IN THIS PAPER.**

INFORMATION FOR CANDIDATES

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

For Examiner's Use Only	
Section A	
Section B	
TOTAL	

FORMULAE SHEET: FOUNDATION TIER
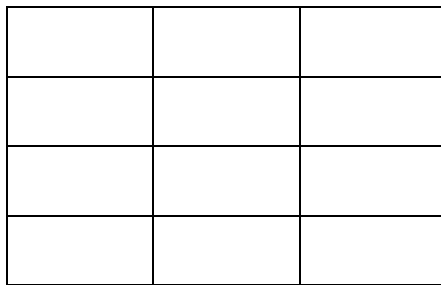
Area of trapezium $= \frac{1}{2}(a+b)h$

1 **(a)** England has an area of 50 320 square miles.
Write 50 320 in words.

Answer *(a)* _____ [1]

(b) Wales has an area of 8 016 square miles.
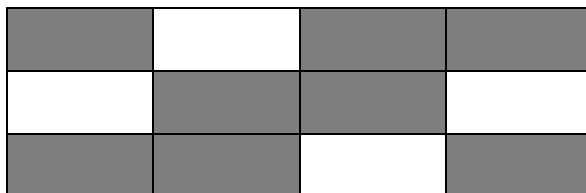Write 8 016 correct to the nearest ten.

Answer *(b)* _____ [1]

2 **(a)** Shade $\frac{1}{4}$ of this diagram.

[1]

(b) What fraction of this shape is shaded?
Give your answer in its lowest terms.

Answer *(b)* _____ [2]

3 Martin has four cards with digits on.

2		3		6		7

(a) (i) What is the largest number he can make by rearranging them?

[1]

(ii) Explain how you decided on your answer.

Answer _____

_____ [1]

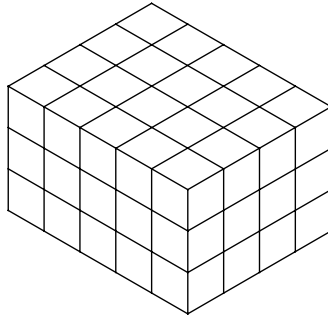**(b)** Using two of the cards how can Martin make

(i) a square number?

[1]

(ii) a cube number?

[1]

4   Stephen works in a supermarket.
He is stacking boxes.

(a)   How many boxes are stacked here?

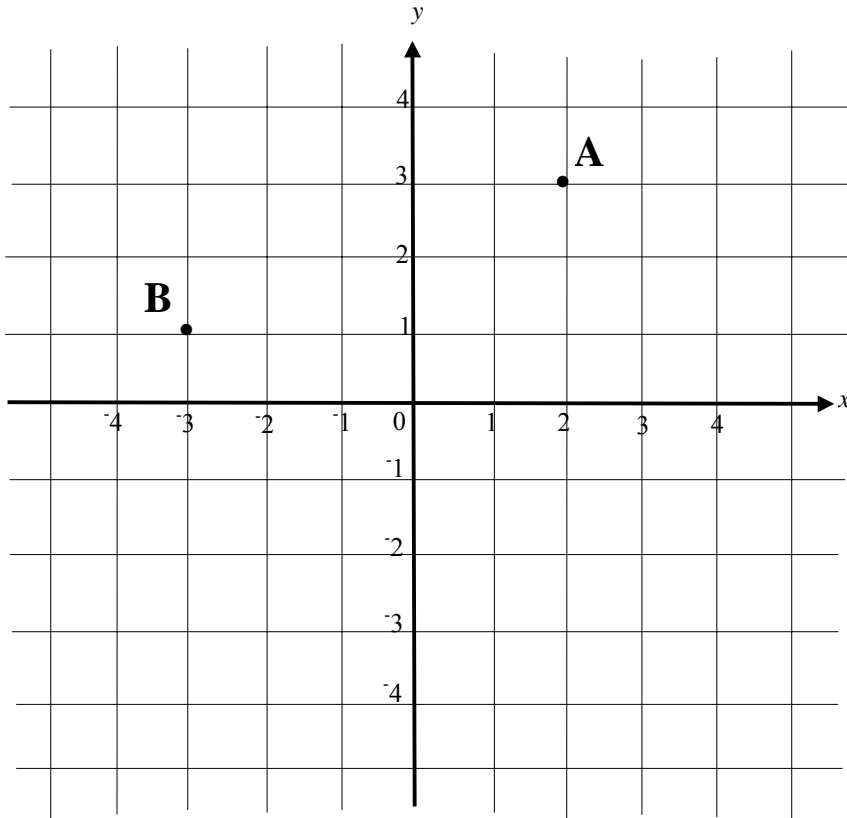*Answer   (a)* _____ [1]

Each box is a cube of side 40cm.

(b)   What are the dimensions of his stack?
Give your answers in metres.

Answer   (b) _____ by _____ by _____ [3]

5   There are 300 pupils at Springmead School.
20% of the pupils live in Westbury.
How many pupils live in Westbury?

Answer _____ [2]

6

(a) Write down the coordinates of

    (i)   **A,**

                         Answer   *(a)(i)*   (_____ , _____) [1]

    (ii)   **B.**

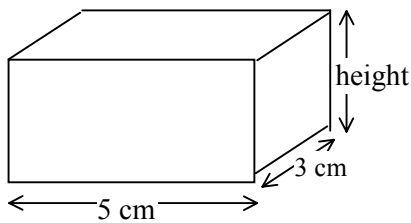   *Answer*   *(ii)*   (_____ , _____) [1]

(b) Plot the point (4, -1).
Label it C.   [1]

7   The volume of the cuboid below is 120cm^3.
    Work out the height.

                         Answer   _____ cm   [2]

8 **(a)** **(i)** Draw a circle with a radius of 6.4 cm.

[1]

(ii) Draw a diameter on your circle.

[1]

(b) A circular lawn has a radius of 10 metres.
Calculate the area of the lawn.
Use $\pi = 3.14$ in this calculation.

Answer *(b)* _____ [3]

9 Gurbax is investigating the number of CDs that some of his friends have bought this year.

(a) He designs a data collection sheet.
One of his questions is shown below.

How many CDs have you bought?
(Tick one)

☐ ☐ ☐ ☐ ☐

0 – 10   **10 - 20**   **20 – 30**   **30 – 40**   **40+**

(i) State two things which are wrong with this question.

Answer _____

_____

_____

_____ [2]

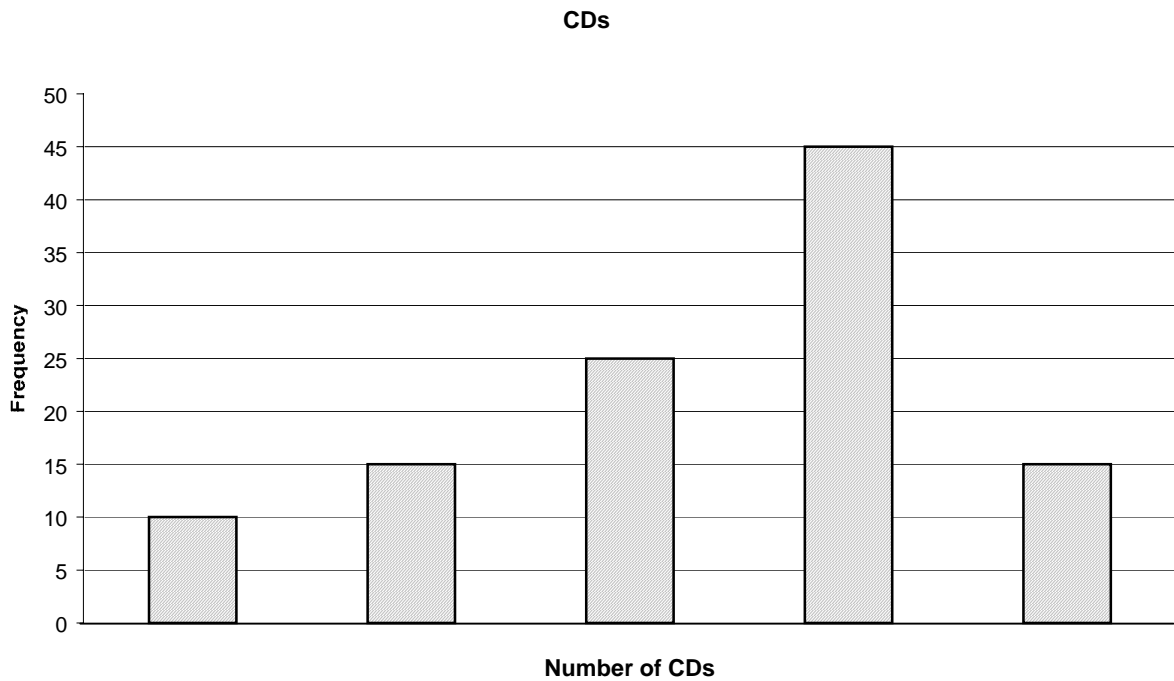**(ii)** Write a better question below.
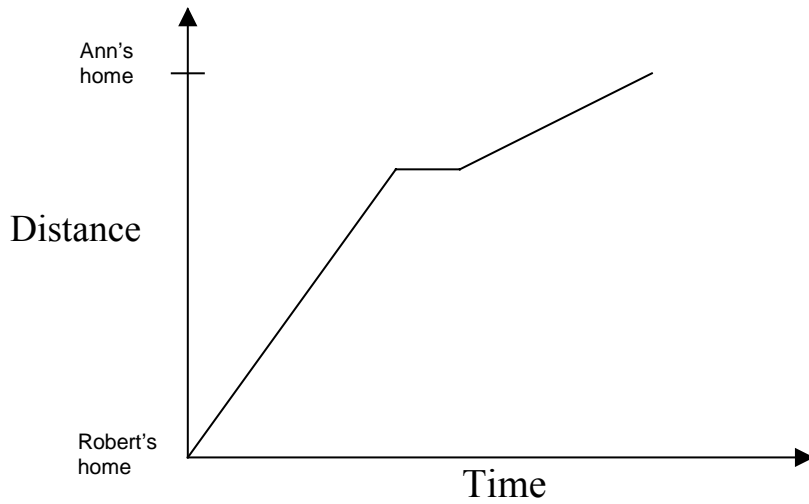
(Tick one)

☐ ☐ ☐ ☐ ☐

[2]

(b) His data is shown on the diagram below.
How many people did Gurbax ask?

CDs

Answer   (b) _____ [2]

10 Robert goes to see his sister Ann.
This travel graph represents his car journey.

Give a brief description of Robert's journey.

First _____

Then _____

Then _____ [3]

11 Solve these equations.

(a) $x - 5 = 12$

Answer *(a)* $x =$ _____ [1]

(b) $5x = 40$

Answer *(b)* $x =$ _____ [1]

MATHEMATICS B (MEI)
PAPER 1 SECTION A

1968/2311A

MARK SCHEME

Specimen Paper 2003

SECTION A

1	**(a)**		fifty thousand three hundred and twenty	B1	
	(b)		8020	B1	
2	**(a)**		correct shading	B1	
	(b)		$\frac{2}{3}$	B2	(B1 for 8/12 or 4/6)
3	**(a)**	**(i)**	7632	B1	
		(ii)	Largest digit first, then next largest, …	B1	
	(b)	**(i)**	36	B1	
		(ii)	27	B1	
4	**(a)**		60	B1	
	(b)		200, 160, 120	M2	(M1 for × one dimension by 40)
			2, 1.6, 1.2	A1	
5			60	B2	(B1 for 20/100 × 300)
6	**(a)**	**(i)**	(2, 3)	B1	
		(ii)	(-3, 1)	B1	
	(b)		correct position	B1	
7			8	B2	(B1 for 120/ (5 × 3))
8	**(a)**	**(i)**	(Diagram) Circle, radius 6.4cm	B1	
		(ii)	Diameter shown	B1	
	(b)		314m^2	B3	(B2 for 314) (B1 for attempt at 100 or 10^2)
9	**(a)**	**(i)**	time	B1	
			overlap	B1	(allow other sensible comments)
		(ii)	timescale	B1	(allow other sensible comments)
			cover range AND not overlap	B1	(allow other sensible comments)
	(b)		110	B2	
10			(Quite) fast	B1	
			Stopped	B1	
			Slower	B1	
11	**(a)**		17	B1	
	(b)		8	B1	