| Centre Number | | | | | | Paper Reference | Surname | Other Names |
|---|---|---|---|---|---|---|---|---|
| Candidate Number | | | | | | | Candidate Signature | |

1387

# Edexcel GCSE

## Mathematics A

Paper 2

FOUNDATION TIER

Specimen Paper

Time: 1 hour 30 minutes

N0000

For Examiner's use only

For Team Leader's use only

**Materials required for the examination**

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

**Items included with these question papers**

Nil

**Instructions to Candidates**

In the boxes above, write your centre number, candidate number, the paper reference, your surname and other names and your signature. The paper reference is shown in the top left hand corner.

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

Supplementary answer sheets may be used

**Information for Candidates**

The total mark for this paper is 100.

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

Tracing paper may be used.

**Calculators may be used.**

This question paper has 23 questions. There are 2 blank pages.

**Advice to Candidates**

Work steadily through the paper.

Do not spend too long on one question.

Show all stages in any calculations.

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

Return at the end to those you have left out.



Edexcel
Success through qualifications

*Leave blank*

**Answer ALL TWENTY THREE questions.**

**Write your answers in the spaces provided.**

**You must write down all stages in your working.**

**1.** (a) Write the number 5074 in words.

.....

**(1)**

**Grade G NA2a**

(b) Write down 5074 to the nearest ten.

.....

**(1)**

**Grade G NA2a**

(c) Write down what the 7 stands for in 5074.

.....

**(1)**

**(Total 3 marks)**

**Grade F NA2a**

---

**2.** Write down the **metric** unit you would use to measure

(i) the weight of a car,

.....

(ii) the distance from Birmingham to Glasgow,

.....

(iii) the amount of lemonade in a glass,

.....

(iv) the length of a bus.

.....

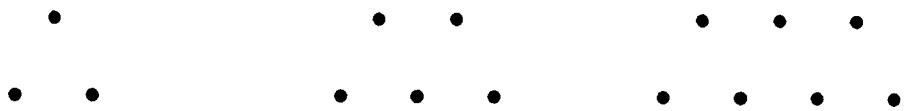
**(Total 4 marks)**

**Grade G SSM4a**

---

*Leave blank*

**3.** Here are some patterns of dots.



Pattern number 1 | Pattern number 2 | Pattern number 3

(a) Draw pattern number 4.

**Grade G NA6a**

**(1)**

(b) Complete the table.

**Grade G NA6a**

| Pattern number | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Number of dots | 3 | 5 | 7 | | |

**(1)**

(c) (i) Write down the number of dots needed for pattern number 12.

**Grade F NA6a**

.....

(ii) Explain how you found this answer.

**Grade F NA6a**

.....

.....

.....

**(3)**

**(Total 5 marks)**

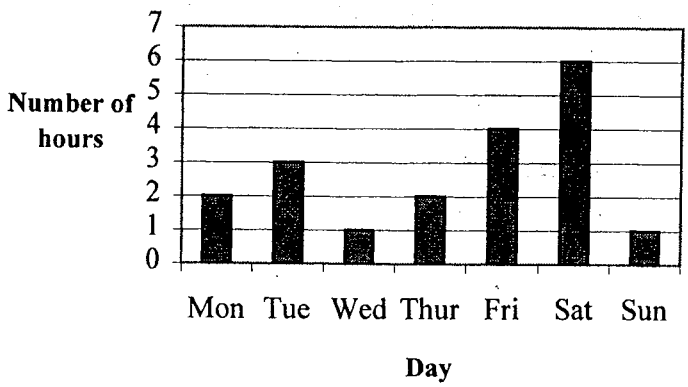


**Turn over**

*Leave blank*

**4.**

**Hours spent watching television**




The bar chart shows the number of hours Jason spent watching television in one week.

(a) Write down the day on which he watched most television.

**Grade G HD5b**

.....

**(1)**

(b) Work out the total number of hours he spent watching television during the week.

**Grade G HD5b**

..... hours

**(2)**

**(Total 3 marks)**

*Leave blank*

**5.** Here is a list of numbers.

8 9 10 11 12 13 14 15 16

From the list, write down

(a) the **two** numbers that are multiples of 5,

**Grade G NA2a**

.....

**(1)**

(b) the **two** numbers that are factors of 24,

**Grade G NA2a**

.....

**(1)**

(c) a square number,

**Grade G NA2b**

.....

**(1)**

(d) a prime number.

**Grade F NA2a**

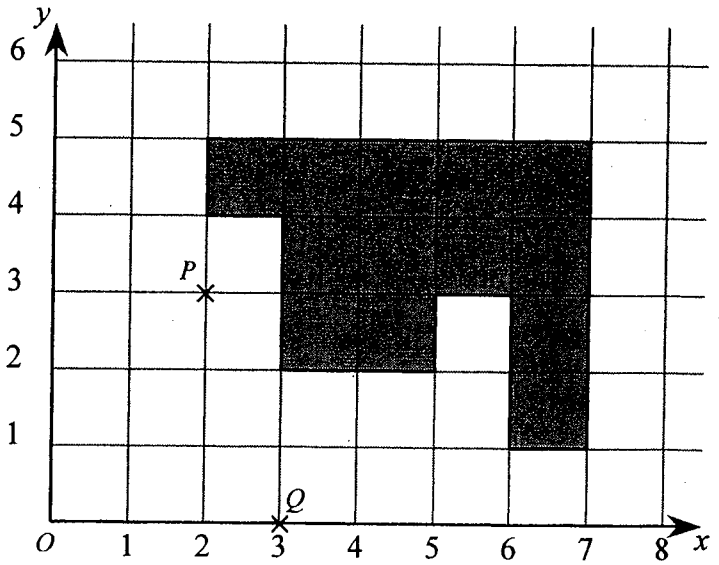
.....

**(1)**

**(Total 4 marks)**

*Leave blank*

**6.**




(a) Write down the co-ordinates of the point

**Grade G SSM3e**

(i) $P$,

( ..... , ..... )

(ii) $Q$.

( ..... , ..... )

**(2)**

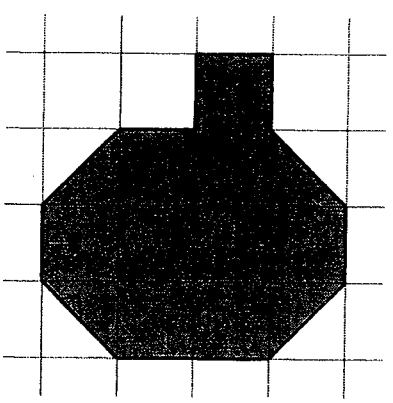
Each small square on the grids has a side of 1 cm.

(b) Work out the perimeter of shape **A**.

**Grade G SSM4f**

..... cm

**(2)**



(c) Work out the area of shape **B**.

**Grade G SSM4f**

..... $cm^2$

**(1)**

**(Total 5 marks)**

*blank*

7. Cheryl was working out the cost of hiring a van for a day.
First of all she worked out the mileage cost.

She used the formula

**Mileage Cost = Mileage Rate × Number of Miles Travelled**

The mileage rate was 8 pence per mile.
Cheryl travelled 280 miles.

(a) Work out the mileage cost.

**Grade G**
**NA5f**

£ .....
**(2)**

Cheryl worked out the Total hire cost by using the formula

**Total Hire Cost = (Basic Hire Cost + Mileage Cost) × 1.2**

The basic hire cost was £45.

(b) Work out the total hire cost.

**Grade F**
**NA5f**

£ .....
**(2)**
**(Total 4 marks)**



**Turn over**

*Leave blank*

**8.** (a) Write $\frac{3}{4}$ as

(i) a decimal. **Grade G NA3c**

.....

(ii) a percentage **Grade G NA3e**

.....%

**(2)**

(b) Write 0.09 as

(i) a fraction. **Grade G NA2d**

.....

(ii) a percentage. **Grade G NA2e**

..... %

**(2)**

(c) Write $\frac{3}{4}$, 0.9 and 70% in ascending order. **Grade G NA2e**

.....

**(1)**

A round cheese weighs 96 grams.
A piece is cut from the round cheese.
The piece is $\frac{5}{8}$ of the original round cheese.

(d) What is the weight of the piece of cheese. **Grade F NA3c**

..... g

**(2)**

(e) Work out the value of **Grade E NA3o**

(i) $\sqrt{20.25}$

.....

(ii) $1.5^3$

.....

**(2)**

**(Total 9 marks)**

*Leave blank*

9. Here is part of a soccer league table.

| | Matches Played | Matches Won | Matches Drawn | Matches Lost | Goals for | Goals against |
|---|---|---|---|---|---|---|
| Wimbledon | 17 | 6 | 4 | 7 | 25 | 21 |
| Liverpool | 16 | 5 | 6 | 5 | 27 | 22 |
| Newcastle | 17 | 4 | 7 | 6 | 18 | 27 |
| Blackburn | 17 | 3 | 8 | 6 | 15 | 29 |

(a) How many matches have Liverpool lost?

**Grade G HD3b**

.....

**(1)**

(b) Which team has drawn 7 matches?

**Grade G HD3b**

.....

**(1)**

A team receives 3 points for each match won, 1 point for each match drawn and no points for each match lost.

(c) Work out the number of points Wimbledon have.

**Grade F NA4b**

.....

**(2)**

A team's goal difference is found using this rule.

| Goal difference = Goals for – Goals against |
|---|

(d) Work out

(i) Liverpool's goal difference,

**Grade G NA5f**

.....

(ii) Blackburn's goal difference.

**Grade F NA5f**

.....

**(2)**

**(Total 6 marks)**



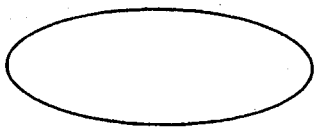
**Turn over**

*Leave blank*

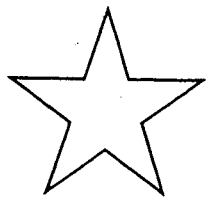
**10.** (a) Draw in all the lines of symmetry for each of these shapes.

**Grade F SSM3b**

(i)



(ii)

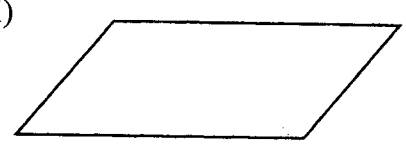


**(2)**

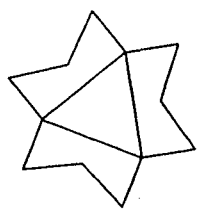
(b) Write down the order of rotational symmetry of this shape.

**Grade F SSM3b**

(i)



(ii)



.....

.....

**(2)**
**(Total 4 marks)**

---

**11.** David has a bag of 5 sweets.
One of the sweets is black and 4 of the sweets are red.
David chooses one sweet at random.

He says, "The sweet I choose will be either black or red. So I am equally likely to choose a black sweet as I am to choose a red sweet."

(a) Explain why he is wrong.

**Grade F HD4d**

.....

.....

**(2)**

(b) Write down the probability that David will choose a black sweet.

**Grade F HD4d**

.....

**(1)**
**(Total 3 marks)**

---

*Leave blank*

**12.** A first class stamp costs 26p.

(a) Write down the greatest number of first class stamps you can buy for £3.

**Grade F NA4b**

.....
**(1)**

Jean buys 15 first class stamps.
She pays with a £5 note.

(b) How much change should she get?

**Grade G NA4b**

£ .....
**(2)**

Wasim buys some first class stamps.
He pays with a £10 note.
He receives £2.46 change.

(c) How may stamps did he buy?

**Grade E NA4b**

.....
**(2)**
**(Total 5 marks)**



**Turn over**

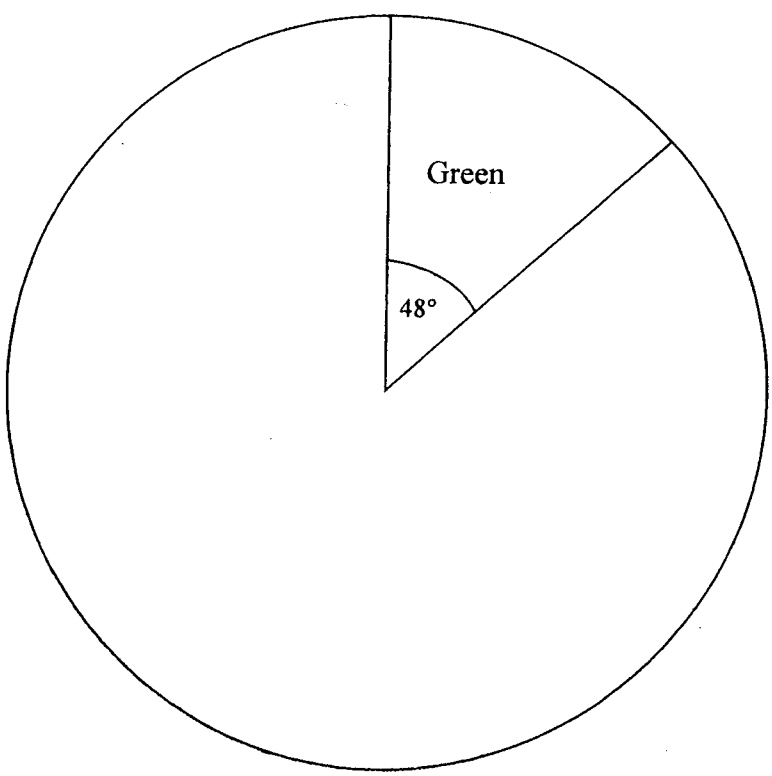
*Leave blank*

**13.** In a survey, the eye colours of the 540 students in a school were recorded.
The table shows the information.

| Eye colour | Number of students |
|---|---|
| Green | |
| Blue | 123 |
| Grey | |
| Brown | 243 |
| | 540 |

This information can be shown in a pie chart.
The pie chart below is incomplete.
Complete the pie chart.

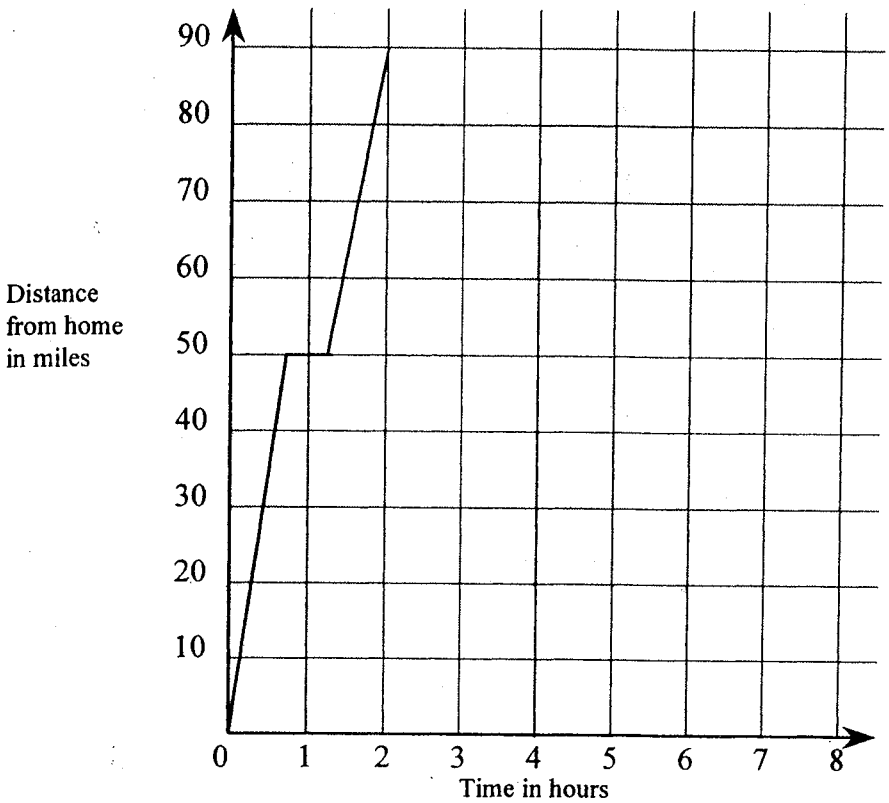
**Grade E**
**HD4a**




**(Total 3 marks)**

*Leave blank*

**14.** Mark drives 90 miles to his friend's house.
This travel graph shows Mark's journey.




(a) Explain what might have happened to Mark when he was 50 miles from home.

**Grade E NA6e**

.....

.....

**(1)**

(b) Work out Mark's average speed for the journey from his home to his friend's house.

**Grade D NA6e**

..... miles per hour

**(2)**

Mark stays at his friend's house for an hour.
He then travels home at a steady speed in 3 hours.

(c) Complete the graph to show this information.

**Grade E NA6e**

**(2)**

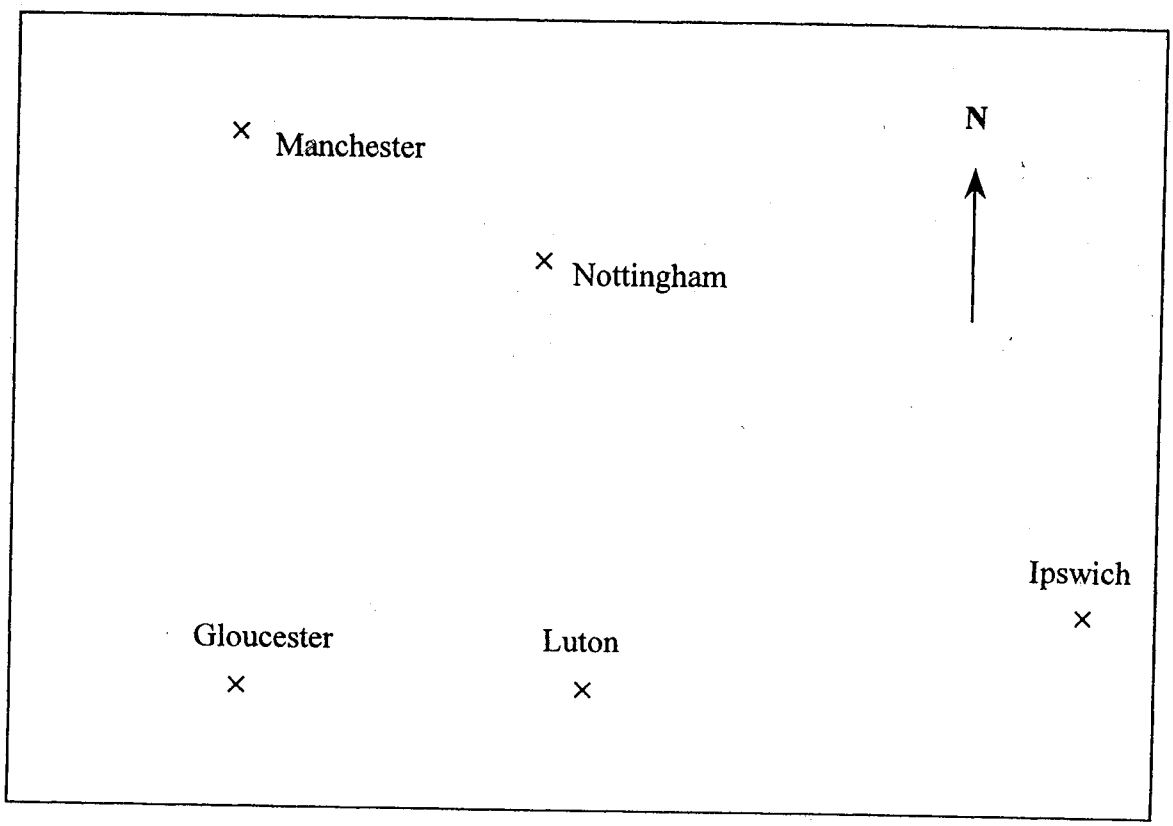
**(Total 5 marks)**



**Turn over**

*Leave blank*

**15.**




The diagram is part of a map showing the positions of several towns.
Measure and write down the bearing of

(a) Nottingham from Gloucester,

**Grade E SSM4b**

° .....

**(1)**

(b) Ipswich from Nottingham,

**Grade E SSM4b**

° .....

**(1)**

**(Total 2 marks)**

*Leave blank*

**16.**

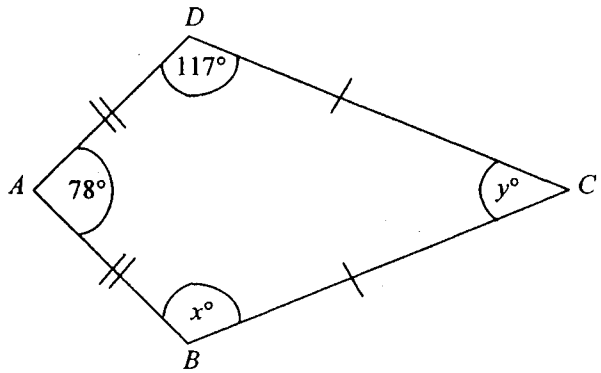



Diagram **NOT** accurately drawn.

The diagram shows a kite

(a) (i) Write down the value of $x$.

**Grade E SSM3b**

$x =$ .....

(ii) Give a reason for your answer.

.....

**(2)**

(b) (i) Work out the value of $y$.

**Grade E SSM2g**

$y =$ .....

(ii) Give a reason for your answer.

.....

**(2)**

**(Total 4 marks)**



**Turn over**

*Leave blank*

**17.** Solve

(a) $3x - 5 = 16$

**Grade E NA5e**

$x =$ .....

**(2)**

(b) $5(y + 3) = 40$

**Grade D NA5e**

$y =$ .....

**(3)**

**(Total 5 marks)**

---

**18.** Janet goes on holiday to Spain.
The exchange rate is £1 = 230.6 pesetas.
She changes £250 into pesetas.

(a) How many pesetas should Janet get?

**Grade E NA4a**

..... pesetas

**(2)**

Janet comes back home.
She changes 650 pesetas back into pounds.
The exchange rate is the same.

(b) How much money should she get?

**Grade E NA4a**

£.....

**(2)**

**(Total 4 marks)**

---

*Leave blank*

**19.** Work out

(a) $\dfrac{14.6-8.72}{0.014}$,

**NA3o**
**Grade F**

.....

**(1)**

(b) $(5.1)^2 \times \sqrt{6.2-3.6}$.

**NA3o**
**Grade F**

.....

**(2)**

**(Total 3 marks)**



**Turn over**

*Leave blank*

**20.** Sam wants to buy a Hooper washing machine.
Hooper washing machines are sold in three different shops.

| **Washing Power** | **Whytes** | **Clean Up** |
|---|---|---|
| $\frac{1}{4}$ OFF<br>usual price<br>of £370 | 15% OFF<br><br>usual price<br>of £370 | £240<br>plus VAT<br>at $17\frac{1}{2}$% |

Find the difference between the maximum and minimum prices Sam could pay for a washing machine.

**NA3m**
**Grade D**

£ .....

**(Total 7 marks)**

*Leave blank*

**21.** The table shows the engine size and the maximum speed of each of ten cars.

| Engine Size (cc) | Maximum speed (mph) |
|---|---|
| 1600 | 111 |
| 1800 | 121 |
| 2000 | 129 |
| 2500 | 130 |
| 2900 | 140 |
| 1400 | 105 |
| 1300 | 95 |
| 1100 | 89 |
| 1000 | 80 |
| 2700 | 136 |

The information for the first six cars has been plotted on the scatter graph opposite.

(a) Complete the scatter graph opposite to show the information in the table. **Grade D HD4a**

**(2)**

(b) Describe the relationship between a car's engine size and its maximum speed. **Grade D HD5f**

.....

.....

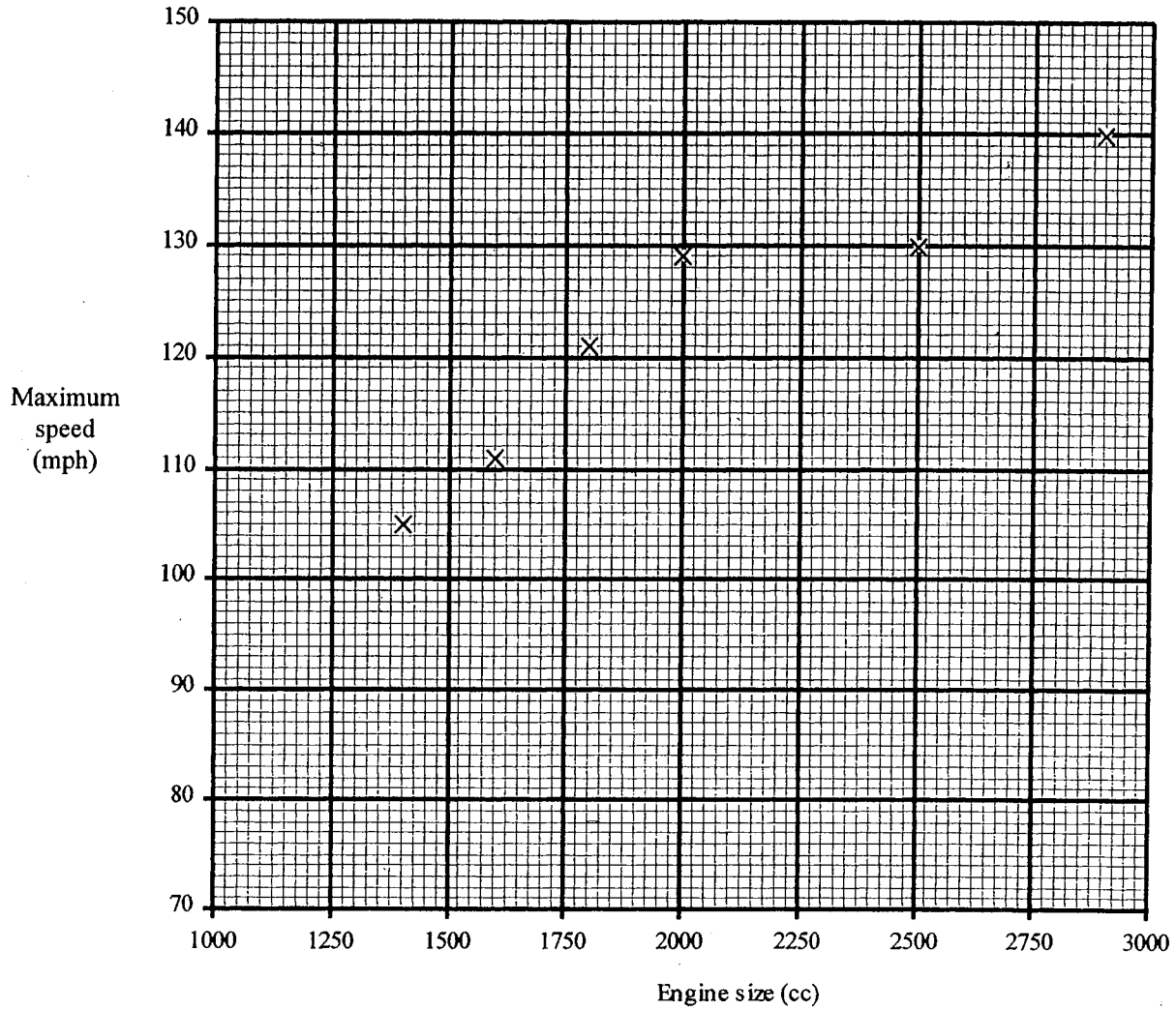
.....

**(1)**



**Turn over**

*Leave blank*




**(Total 3 marks)**

*Leave blank*

**22.**

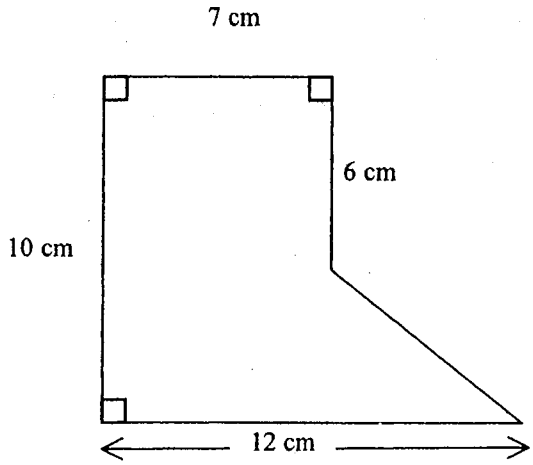



Diagram **NOT** accurately drawn

The diagram shows a shape.

Work out the area of the shape.

**Grade D**
**SSM4f**

..... cm²

**(Total 5 marks)**



**Turn over**

*Leave blank*

**23.** Circular fish ponds can be built to size.

The order form asks for the required diameter.

Ramana wants a circular fish pond with an area of 10 $m^2$.

What diameter should she put on the order form?

**SSM4h**
**Grade D**

..... m

**(Total 4 marks)**

**TOTAL FOR PAPER : 100 MARKS**