MERCHANT TAYLORS'
School

MERCHANT TAYLORS' SCHOOL

11+ OFFICIAL PRACTICE PAPER

MATHEMATICS

Time Allowed: 60 minutes

Instructions:

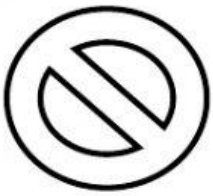
Answer as many questions as possible. Some of them are easy at the start and become more difficult. You should show all your working on this question paper.

TURN OVER

LIVEWORKSHEETS

LIVEWORKSHEETS

1. (a) Draw all of the lines of symmetry on the following shape.



(b) How many lines of symmetry has the shape below?

Answer: ……

(c) Draw a shape with exactly four lines of symmetry in the space below.

[3 marks]

Turn Over!

LIVEWORKSHEETS

2. (a) Write in digits the number seventy three thousand and forty six.

Answer:……..[1 mark]

(b) Write the answer to the sum of two hundred and six plus two thousand three hundred and twenty in words.

Answer:……[1 mark]

3.

2	5	9	15	24	28	36	45	53

From the numbers in the box above write down:

(a) A multiple of 7:

Answer:…… [1 mark]

(b) A square number:

Answer:…… [1 mark]

(c) The product of two of the other numbers in the box:

Answer:…… [1 mark]

LIVEWORKSHEETS

4. (a) Calculate the angles marked x and y in the diagram below:

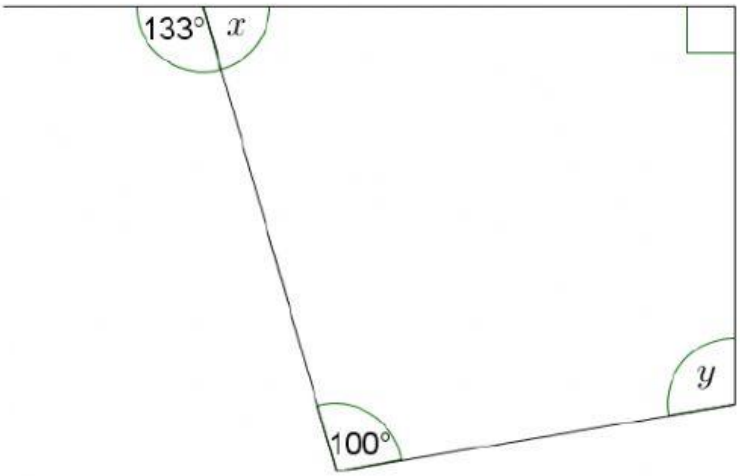


Diagram not drawn to scale

Answer: x =……, y=……*[2 marks]*

(b) Calculate the angles marked p, q, r, s and t in the diagram below:

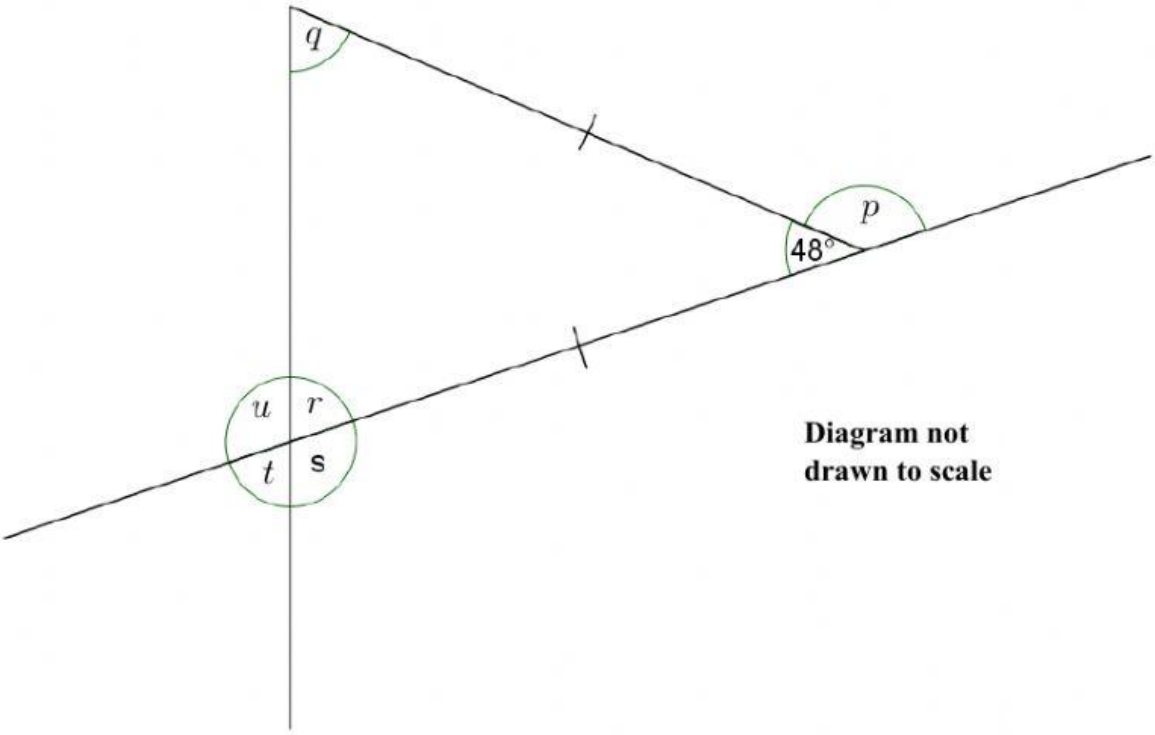


Diagram not drawn to scale

Answer: p =……, q =……, r =……, s =……, t =……, u =……*[4 marks]*

Turn Over!

LIVEWORKSHEETS

5. (a) Sean scored 27 out of 45 in a test. Write this as a percentage.

Answer:……% [2 marks]

(b) In a class of 30 pupils, 21 are girls. What percentage of the class is boys?

Answer:……% [2 marks]

(c) Write 0.8 as a fraction in its simplest form.

Answer:…… [2 marks]

(d) Write 85% as a fraction in its lowest terms.

Answer:……[2 marks]

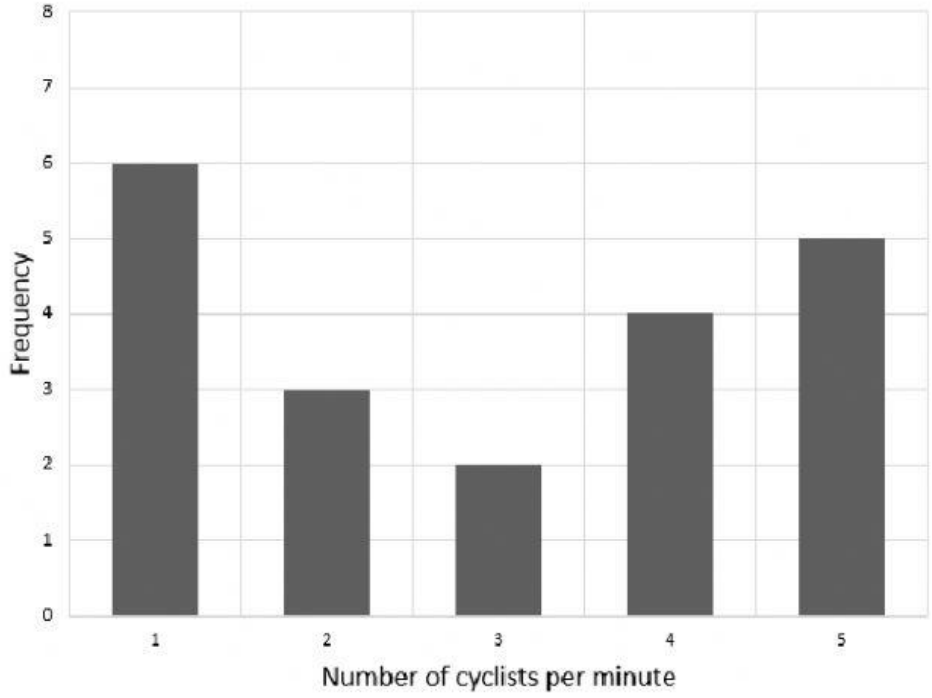
(e) Rearrange the following in order of size, ***smallest to largest.***

$$\frac{9}{25},\ 0.371,\ \frac{2}{5},\ 38\%,$$

Answer:…… *[2 marks]*

LIVEWORKSHEETS

6. Sarah sat by the river Thames and recorded the number of cyclists that passed by every minute. She plotted a bar chart of her results.



(a) What was the largest number of cyclists to pass in one minute?

Answer..... *[1 mark]*

(b) What was the most frequent number of cyclists per minute?

Answer.....*[1 mark]*

(c) For how many minutes, in total, was Sarah recording cyclists?

Answer.....*[1 mark]*

Sarah now continues to count the number of cyclists for the next 3 minutes. The number of cyclists were: 1, 4, 1.

(d) Add this data to the bar chart above. *[2 mark]*

Turn Over!

LIVEWORKSHEETS

7. A gardener measures the night time temperatures over two evenings and records the results in the table shown below:

	Monday Temperature in degrees Centigrade	**Tuesday Temperature in degrees Centigrade**
10pm	3	2
11pm	3	1
12am	2	1
1am	1	0
2am	0	-1
3am	-2	-3
4am	-1	-1
5am	0	0
6am	1	2
7am	2	4

(a) At what time and on which day was the lowest temperature recorded?

Answer:……..[1 mark]

(b) What was the difference between the lowest and highest temperature on Tuesday?

Answer:……°C[1 mark]

(c) He realises his thermometer is recording incorrectly and that each temperature should be 5°C lower than was recorded. What is the correct temperature at 1am on Monday?

Answer:……°C[1 mark]

(d) On Wednesday the forecast is for all temperatures to drop by 3^0C from what they were on Tuesday. Bearing in mind his thermometer is broken, what will the actual temperature be on Wednesday at 2am?

Answer:……°C[1 mark]

LIVEWORKSHEETS

8. Solve the following equations:

(a) $3x = 36$

Answer: $x =$……*[1 mark]*

(b) $c + 7 = -15$

Answer: $c =$…….*[1 mark]*

(c) $4p - 2 = 14$

Answer: $p =$…….*[1 mark]*

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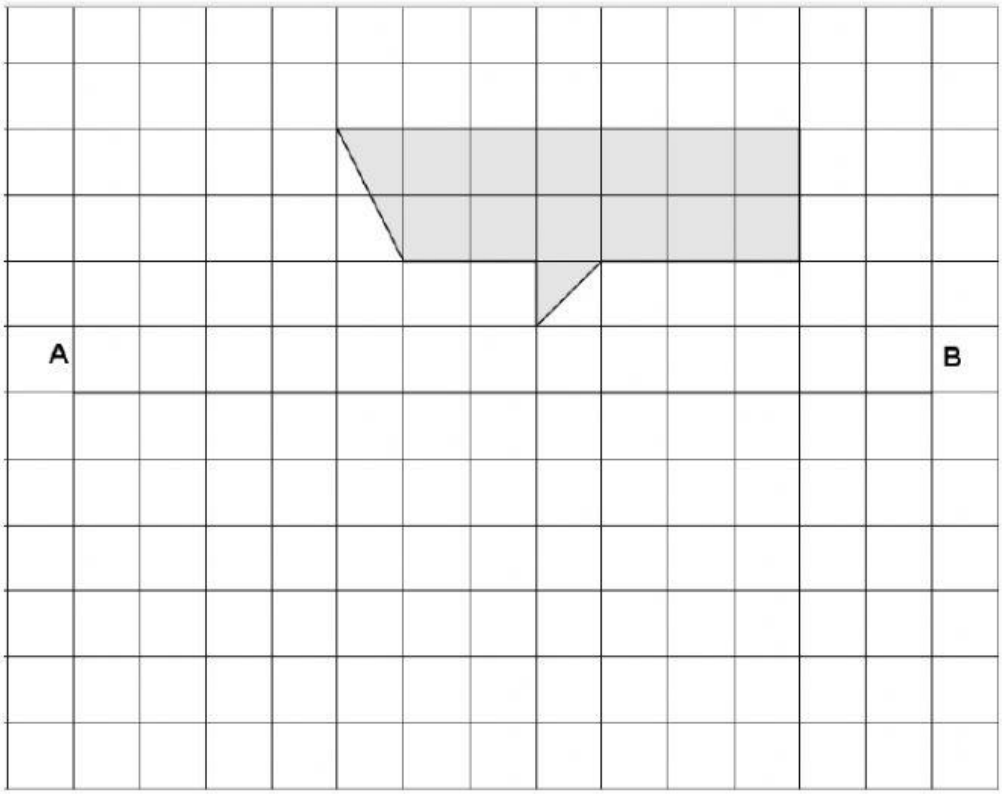
9. On the grid below draw the reflection of the shape shown in the mirror line AB:



[1 mark]

Turn Over!

LIVEWORKSHEETS