

MARKING	
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# 11+ SPECIMEN PAPER

## MATHEMATICS

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Time allowed: 45 minutes

### Instructions

- Use **black or blue** ink or ball-point pen for answers. Working can be in pencil or pen.
- Answer **all** questions.
- Answer the questions in the spaces provided – there may be more space than you need.

### Information

- The total mark for this paper is 73.
- Calculators are **NOT** allowed.

### Advice

- Write your answers on the dotted lines provided.
- Show your working so it is clear how you obtained your answers.
- Try to answer every question.
- Check your answers if you have time at the end.

PLEASE COMPLETE IN CAPITAL LETTERS:

FIRST NAME :

SURNAME :

CURRENT SCHOOL :


<p>1. a) Write down the number eighteen thousand and thirty six in figures.</p> <p style="text-align: right;">.....</p> <p>b) Write down the number eleven and nine thousandths as a decimal.</p> <p style="text-align: right;">.....</p>	(2)
<p>2. Calculate <math>572 + 2639</math></p> <p style="text-align: right;">.....</p>	(2)
<p>3. Calculate <math>6431 - 729</math></p> <p style="text-align: right;">.....</p>	(2)
<p>4. Calculate <math>893 \times 87</math></p> <p style="text-align: right;">.....</p>	(2)
<p>5. Calculate <math>2874 \div 6</math></p> <p style="text-align: right;">.....</p>	(2)

<p>6. A menswear shops sells 7 times as many white shirts as checked shirts. 72 shirts are sold in total. How many white shirts are sold?</p> <p>.....</p>	(2)
<p>7. Gavin buys four bottles of cola at £1.09 each and 8 chocolate bars at 62p. How much change should he receive from a ten-pound note (in pence)?</p> <p>.....</p>	(2)
<p>8. A length of rope is 5m long. It is cut into four unequal lengths. Three of the pieces are 147cm, 132.5cm and 67cm. How long is the fourth piece (in cm)?</p> <p>.....</p>	(2)
<p>9. Fill in the missing numbers to make each equation correct.</p> <p>e.g. <math>36 + 32 = 49 + \dots^{19}</math></p> <p>a) <math>92 + 29 = 47 + \dots</math></p> <p>b) <math>87 - 48 = 63 - \dots</math></p> <p>c) <math>50 \times 9 = 6 \times \dots</math></p> <p>d) <math>9600 \div 80 = 720 \div \dots</math></p>	(4)

10. Jennifer thinks of a number. She subtracts twelve, then divides by two and then adds fifteen. Her answer is 27. What is the number of which Jennifer first thought?

..... (2)

11. Tom is 142cm tall and Harry is 168cm tall. James is halfway between Tom's and Harry's height. Workout James' height.

..... (2)

12. A cyclist covers 45km in 3 hours. How many minutes does it take her to cycle 1500m at the same rate?

..... (2)

13. For each line of values, put a **circle** around the **smallest** value and **underline** the **largest**.

- a)      2.506              2.56              2.006              2.056              2.6
- b)       $\frac{1}{4}$                $\frac{6}{7}$                $\frac{7}{8}$                $\frac{8}{9}$                $\frac{1}{5}$
- c)       $\frac{9}{20}$               0.55               $\frac{3}{5}$               0.25               $\frac{53}{100}$
- d)      28cm               $\frac{1}{5}$  m              2600mm              0.28m              25cm

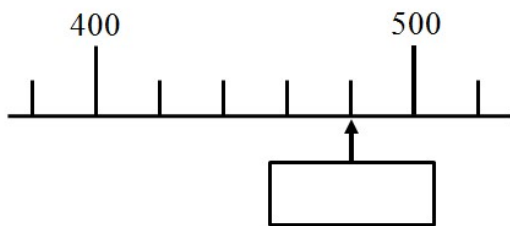
(8)

14. Three masses are measured to be 720g, 3.46kg and 2kg 53g.  
 What is their total mass? Give your answer in grams.

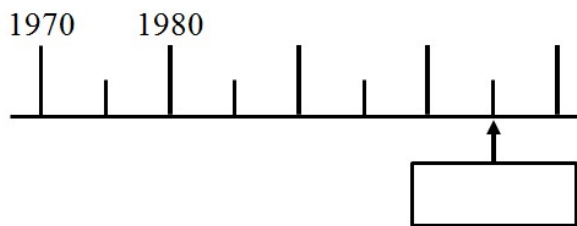
..... (2)

15. Here are sections of four different number lines. Write the number indicated by the arrow.

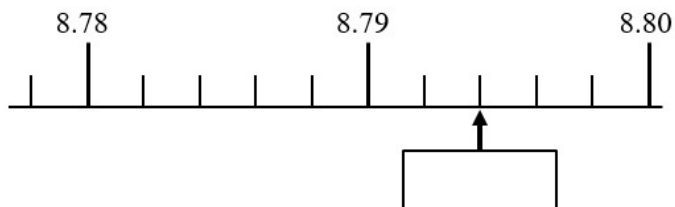
a)



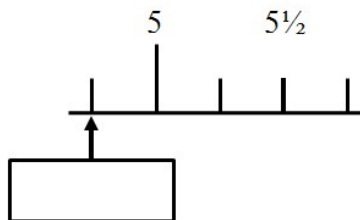
b)



c)



d)

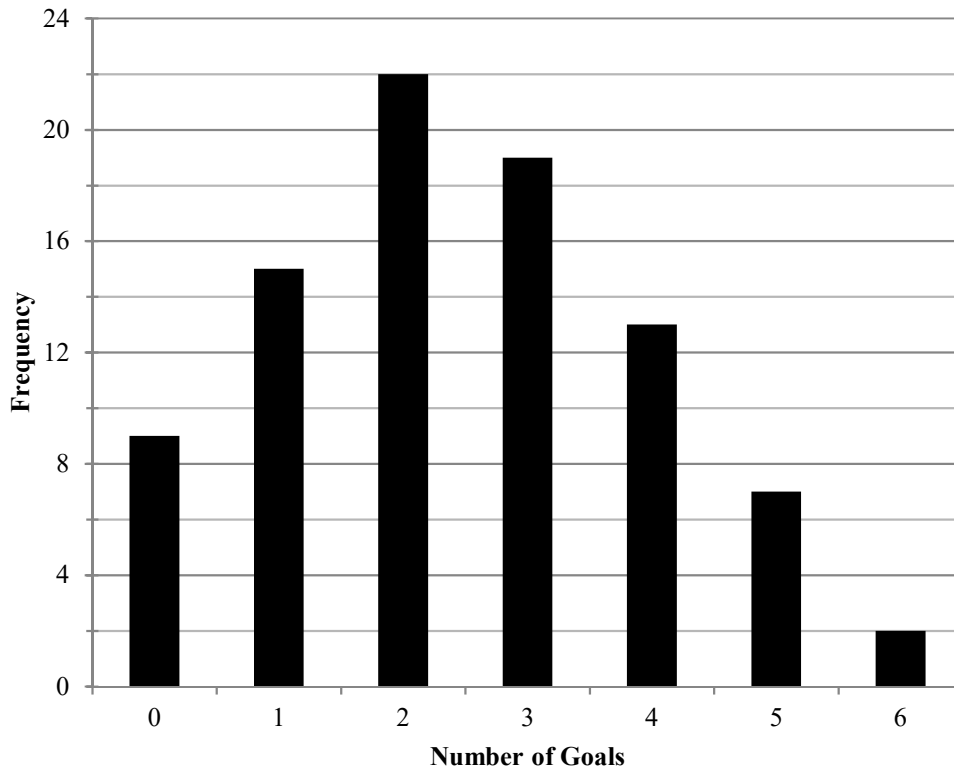


(4)

16. Write down two fractions equivalent to  $\frac{4}{5}$  where one of the numbers in each the fraction is twenty.

..... and ..... (2)

17. The bar chart shows the number of goals scored by entrants to a penalty competition.



a) What was the highest number of goals scored?

.....

b) How many entrants score more than two goals?

.....

c) How many people took part in the competition?

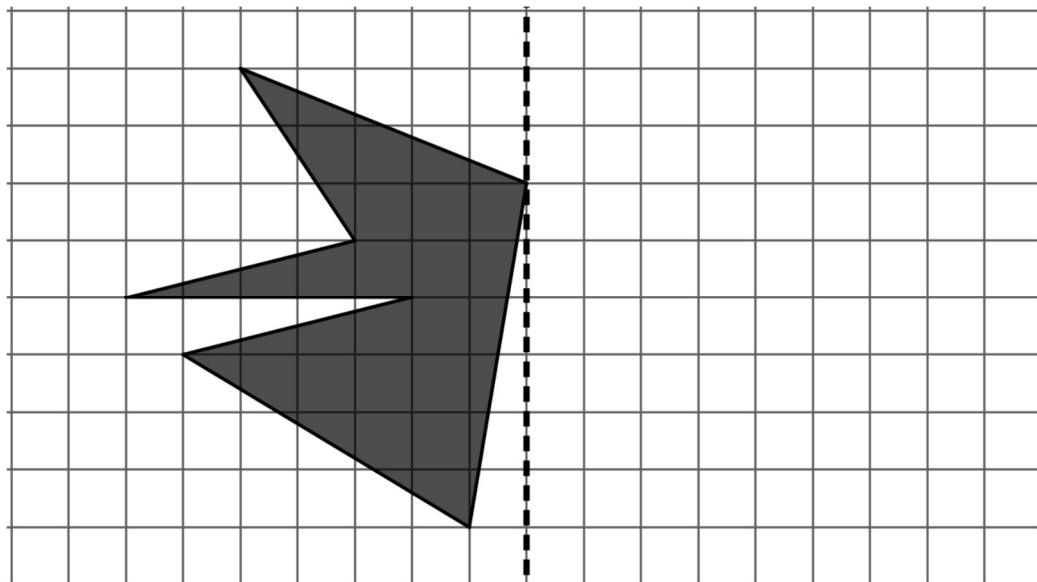
.....

d) How many goals were scored altogether?

.....

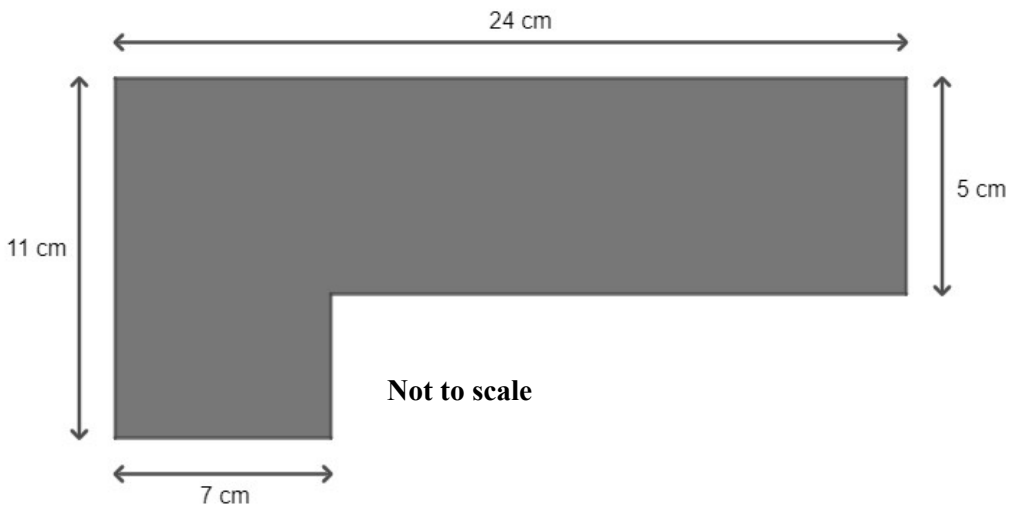
(5)

18. Complete the diagram so that it has reflective symmetry in the dotted line.



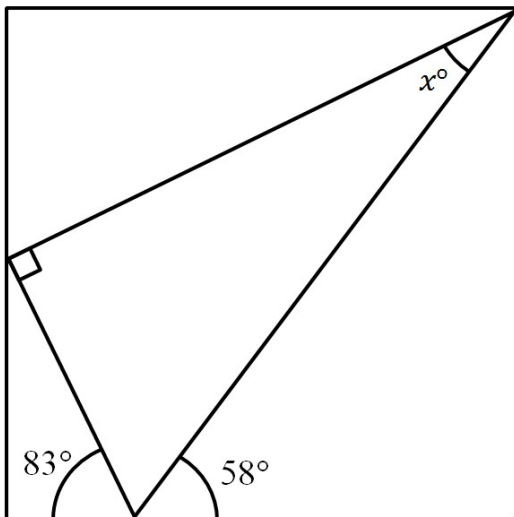
(2)

19. What is the area of the shape shown? Give your answer in  $\text{cm}^2$ .



..... (2)

20. Here is a **right-angled triangle** inside a **rectangle**. Calculate the size of angle  $x$ . Do **not** use a protractor.



Not to scale

..... (2)

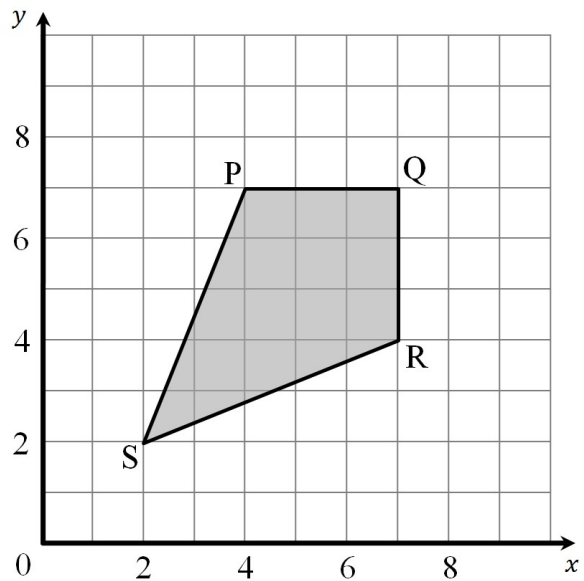
21.

a) Write down the coordinates of the point **P**:

.....

b) Write down the name of quadrilateral **PQRS**:

.....

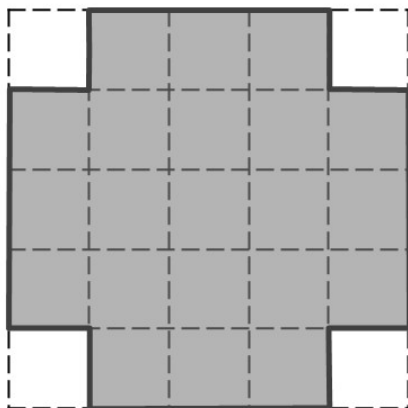


(2)

**END OF SECTION A**

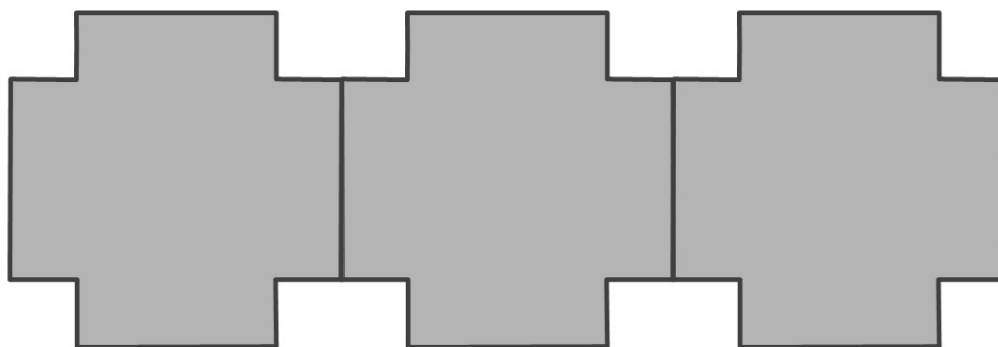
**SECTION B**

22. A tile in the shape of a cross is made by drawing a square of length 10cm and removing a square of length 2cm from each corner as shown below.



a) What is the perimeter of the tile (in cm)?  
 .....

Robert puts three of these tiles together to form the shape below:



b) What is the perimeter of Robert's shape (in cm)?  
 .....

Ravi now puts 15 of these tiles together in a similar manner to Robert.

c) What is the perimeter of Ravi's shape (in cm)?  
 ..... (5)

23. I am thinking of a number.

It is less than 100.

It is odd.

It is a square number.

It is not a multiple of three nor five.

Write down the two possible values of my number

..... and ..... (2)

24. An octagonal spinner is shown:

a) For each statement determine whether it is TRUE (mark ✓) or FALSE (mark ✗)

3 is the most likely score

.....

3 and 4 are equally likely scores

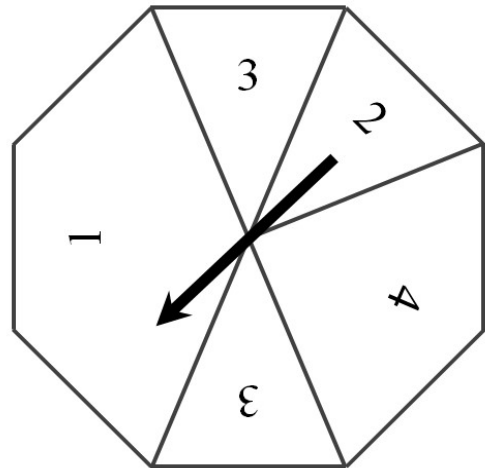
.....

Odd and even scores are equally likely

.....

A score of less than 2 is more likely than a score of 2 or more

.....



b) John is designing a new spinner.

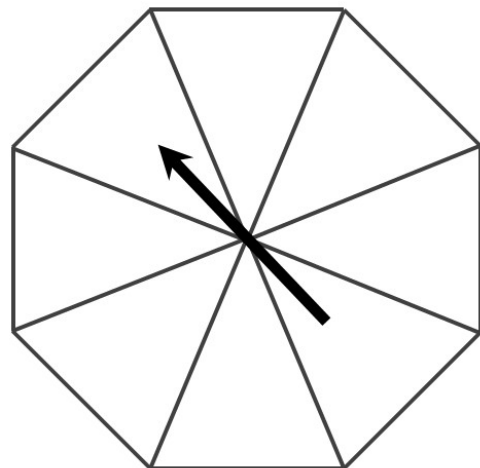
He wants it to have only the numbers 1, 2, 3 and 4 on it.

He wants the probability of getting a 4 to be 0.5.

He wants the probability of getting a 2 and the probability of getting a 3 to be equally likely.

He wants the probability of getting a 1 to be greater than the probability of getting a 3.

Enter the number(s) 1, 2, 3 or 4 into each of the 8 segments of the empty spinner.



(7)

25. This calculation is correct:  $396 \times 279 = 110484$  Use this result to answer the following:

a)  $3.96 \times 2.79$

.....

b)  $110484 \div 279$

.....

c)  $1104.84 \div 2.79$

.....

d)  $1104.84 \div 396$

.....

(4)