



King's High School

Entrance Examination

Mathematics

Sample

TIME **30 minutes**

INSTRUCTIONS FOR CANDIDATES

This paper contains 20 questions.

Answer as many questions as you can in the spaces provided.

Put your final answer in the boxes provided underneath the question.

Marks are available for working so you **must** show how you arrived at your answer in the space before the answer box.

If you can't do a question, leave it out and go onto the next one.

If you finish early make sure you have attempted every question and not missed a page.

You **MAY NOT** use a calculator

Write your name in the box provided below

First name:

Surname:

Question 1

Work out

$$328 + 5321 + 57$$

Question 2

Work out

$$7856 - 965$$

Question 3

Work out

$$8957 \times 6$$

Question 4

Work out

$$2702 \div 7$$

Question 5

Work out

$$847 \times 38$$

Question 6

Work out

$$19 - 3 \cdot 47$$

Question 7

Work out

$$74 \cdot 2 \div 2 \cdot 46 \div 0 \cdot 0834$$

Question 8

Which of the following numbers is closest in value to 1?

1.1, 0.988, 1.009, 0.99, 1.01

Question 9

Work out

0.762×1000

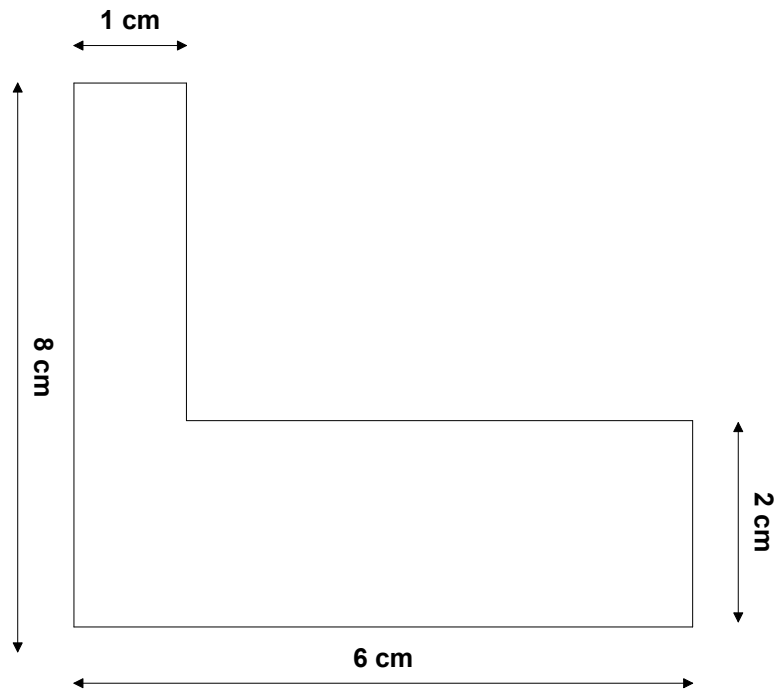
Question 10

Work out

$2.669 \div 100$

Question 11

An L shape is made from card as shown in the diagram below



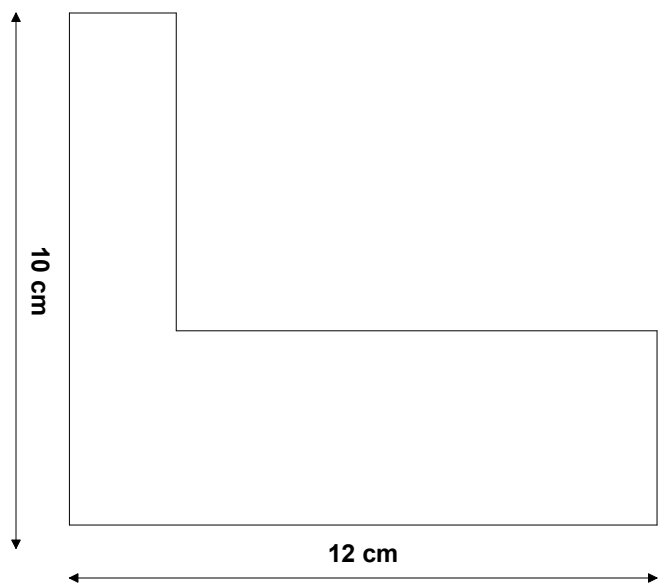
Find the area of this shape. You must state the units of your answer.

100

Find the perimeter of the shape

Question 11continued

I asked Clare to find perimeter of another L shape shown below



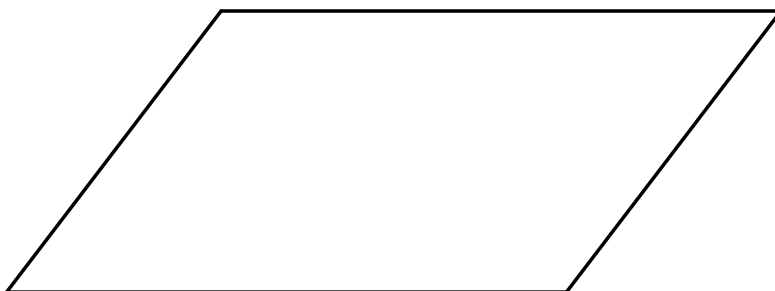
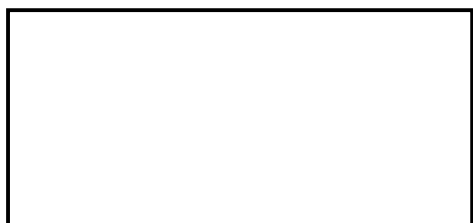
She said that she couldn't because I had not given her enough information. Is Clare correct?



Question 12

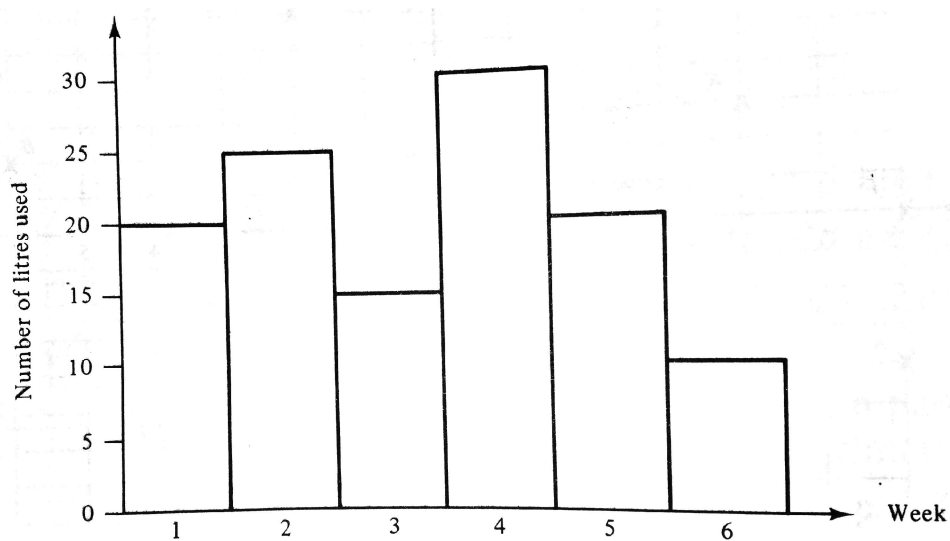
Here are two shapes.

Draw on any lines of symmetry (mirror lines)



Question 13

The bar chart shows the petrol used in each of six weeks by Mr Ashby.



What was the total amount of petrol used in the six weeks?

What was the average (mean) amount of petrol used in a week?

Question 13 continued...

How much more petrol was used in Week 4 than in Week 6?

How much petrol would be saved if Mr Ashby used 18 litres every week?

Find the difference between the greatest and the least amount of petrol used in a week.

Question 14

There are 28 girls in 7K. They were asked what their favourite pet would be and the results are shown in the pie chart below:



Look at the chart and state whether each of the following statements is true or false:

14 girls like dogs the best

$\frac{1}{4}$ of the girls like cats the best

25% of the girls like Guinea Pigs the best

7 students like rabbits the best

Question 15



An ordinary die is thrown and the score noted down.

Answers to this question must be given as fractions in their simplest form.

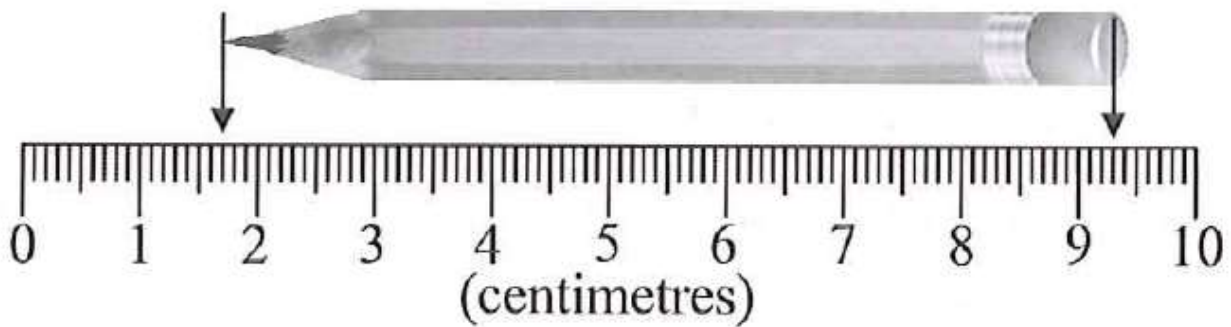
What is the probability that an even number is thrown?

What is the probability that a multiple of 3 is thrown?

What is the probability that a prime number is thrown?

Question 16

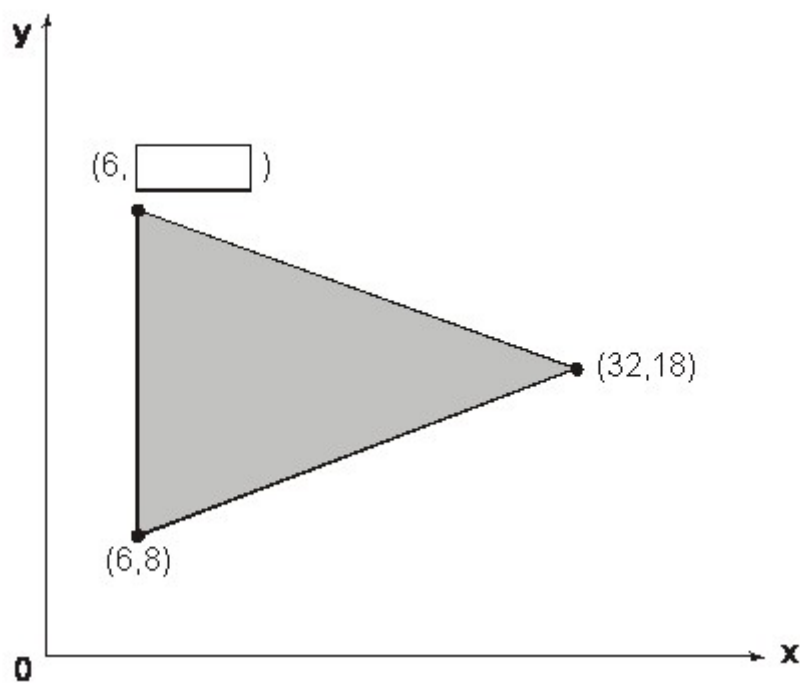
Use the ruler below to work out the length of the pencil shown in cm



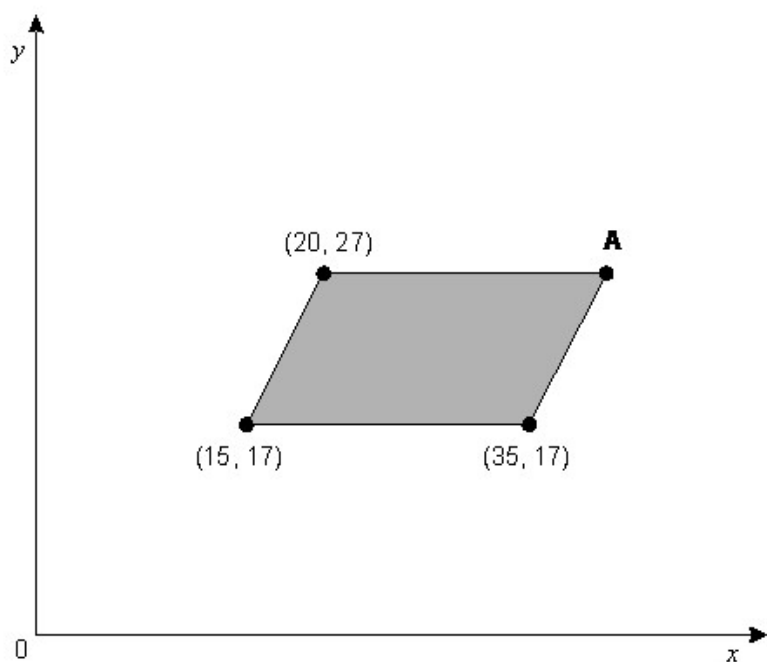
Question 17

The shaded shape is an **isosceles** triangle.

Write the missing coordinate in the box



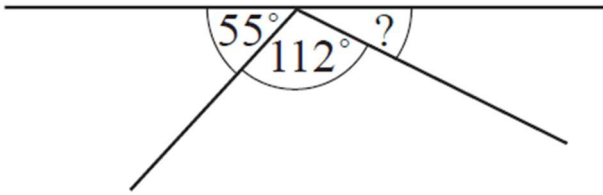
The shaded shape below is a parallelogram. What are the coordinates of the point A?



A(,)

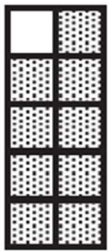
Question 18

What is the size of the missing angle in the diagram below?



Question 19

a What percentage of the diagram below is shaded?



b What is 10% of 40?

What is 40% of 10?

c Use what you have spotted about the last two answers to help you find what $6\frac{1}{2}\%$ of 50 is

Question 20

The answer to 27×46 is 1242

Use this information to **write down** the answer to the following.
Do **not** write down any working.

$$270 \times 0.46$$

--