

8300

GCSE MATHEMATICS

Foundation and Higher tier – Questions by Topic

Geometry

Area and perimeter – Finding the area of triangles

v1.0

Name _____

Materials

For this paper you must have:

- Mathematical instruments

Information

- The marks for questions are shown in brackets

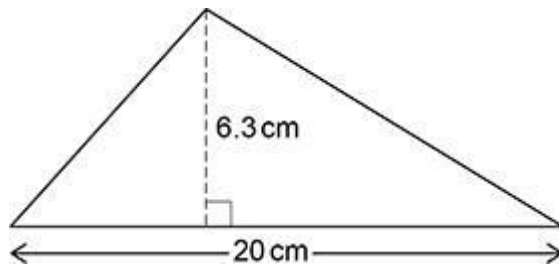
Advice

- In all calculations, show clearly how you work out your answer

For question 1, you must **NOT** use a calculator.



Q1.



Not drawn accurately

Work out the area of this triangle.

(Total 2 marks)

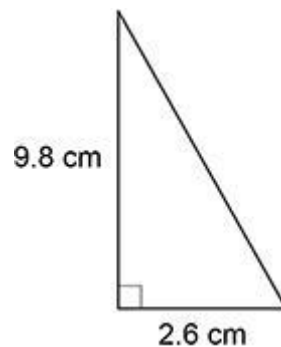
For questions 2 to 8, you may use a calculator.



Q2.

Work out the area of this triangle.

Not drawn accurately

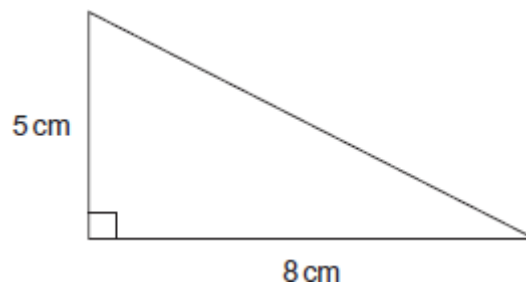


(Total 2 marks)

Q3.

Calculate the area of the triangle.

Not drawn accurately

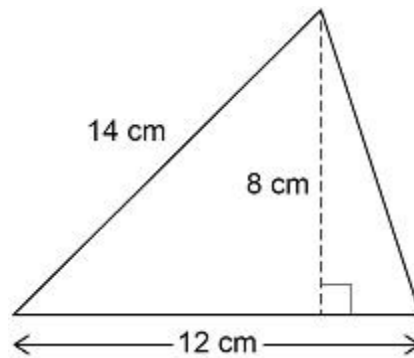


(Total 2 marks)

Q4.

Zak wants to work out the area of this triangle.

Not drawn accurately



Here is his working.

$$12 \times 8 = 96 \text{ cm}^2$$

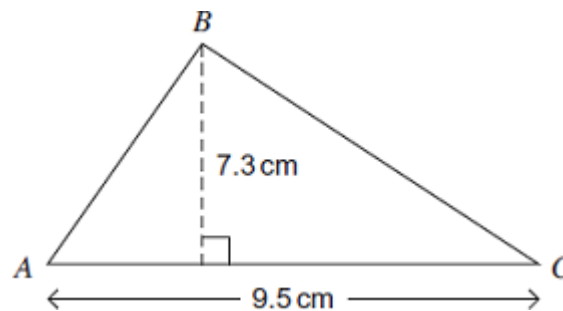
What is wrong with his method?

(Total 1 mark)

Q5.

The diagram shows a triangle ABC .

Not drawn accurately



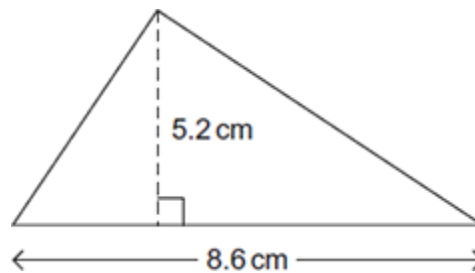
Work out the area of the triangle.
Give your answer to 1 decimal place.

(Total 3 marks)

Q6.

Work out the area of the triangle.

Not drawn accurately



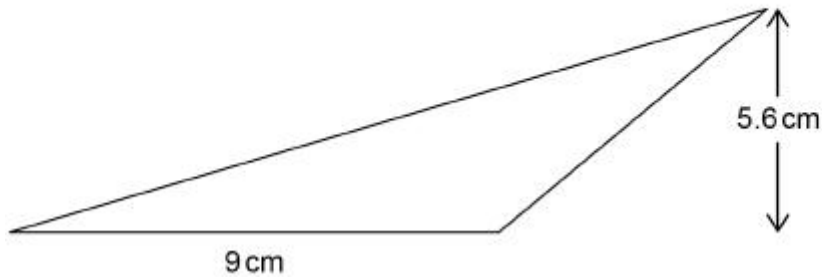
Give your answer to 1 decimal place.

(Total 3 marks)

Q7.

A triangle has base 9 cm and perpendicular height 5.6 cm

Not drawn
accurately



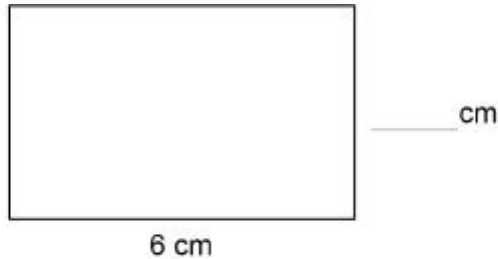
Work out the area of the triangle.

(Total 2 marks)

Q8.

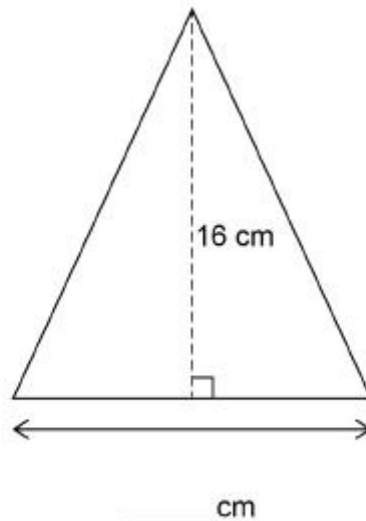
Each shape below has an area of 24 cm^2
Complete the missing lengths.

Rectangle



Not drawn
accurately

Triangle



(Total 3 marks)

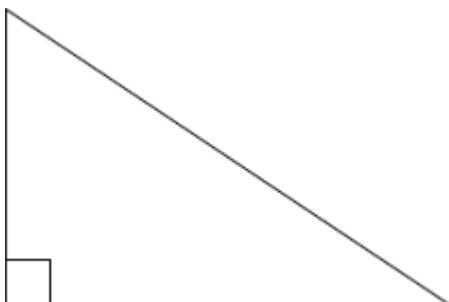
Area and perimeter – Finding the area of triangles – Cross topic questions

For question 9, you must **NOT** use a calculator.



Q9.

This triangle is **drawn accurately**.



Work out the area of the triangle.

(Total 3 marks)

For the rest of the questions, you may use a calculator.



Q10.

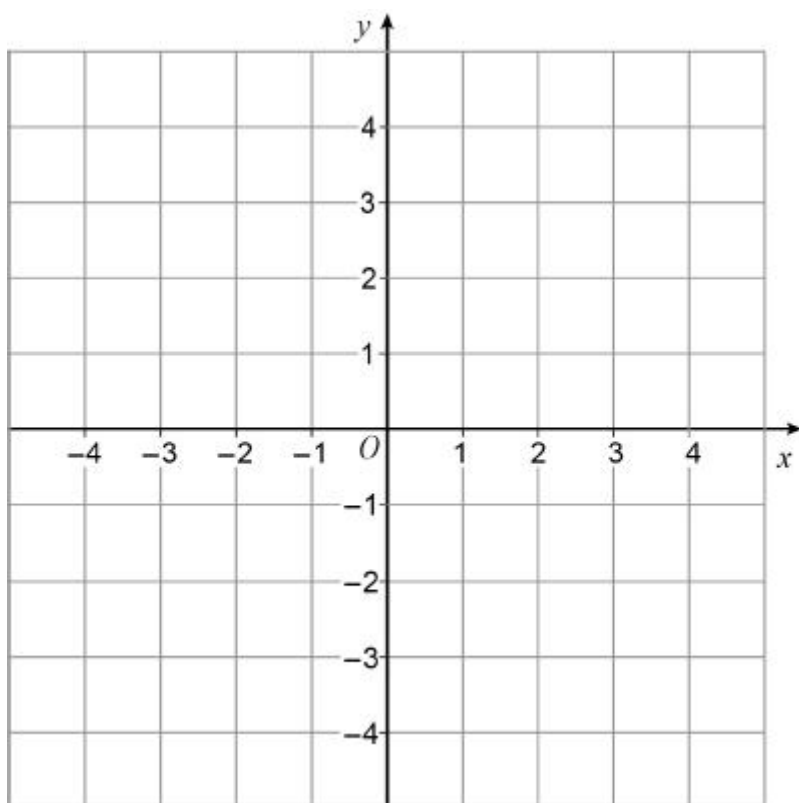
ABC is a right-angled triangle.

A is the point $(-3, -2)$

B is the point $(1, -2)$

C is a point on the line $y = 4$

- (a) Draw triangle ABC on the centimetre grid below.



- (b) Work out the area of triangle ABC .

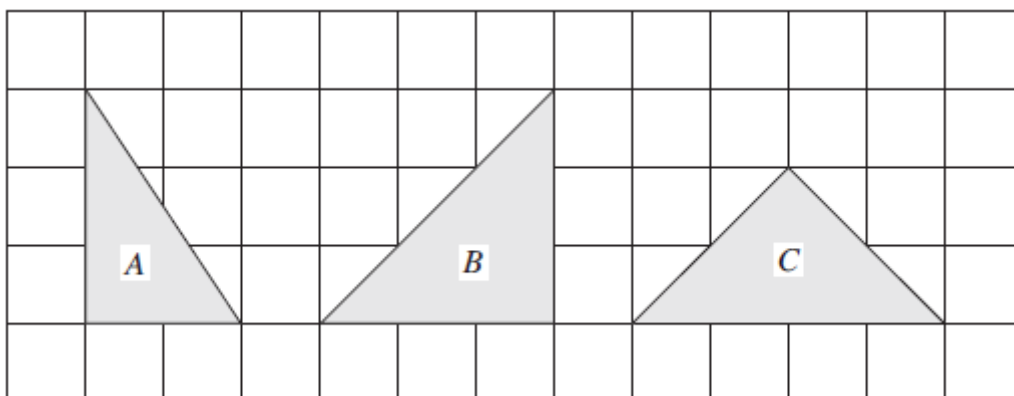
(3)

(2)

(Total 5 marks)

Q11.

Three triangles are shown on the centimetre grid.



- (a) Which triangle is **not** isosceles?
- (b) Work out the area of the triangle with the greatest area.
State the units of your answer.

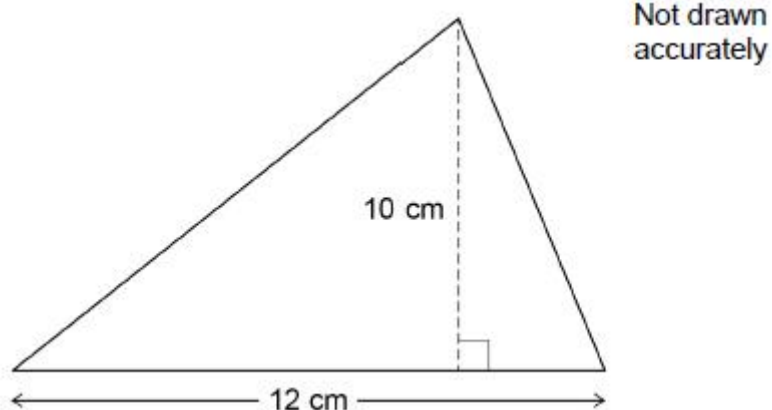
(1)

(3)

(Total 4 marks)

Q12.

A force of 180 newtons (N) is applied to the surface of this triangle.



Work out the pressure.

Use $\text{pressure} = \frac{\text{force}}{\text{area}}$

(Total 3 marks)