Area of a Triangle (Trigonometry)
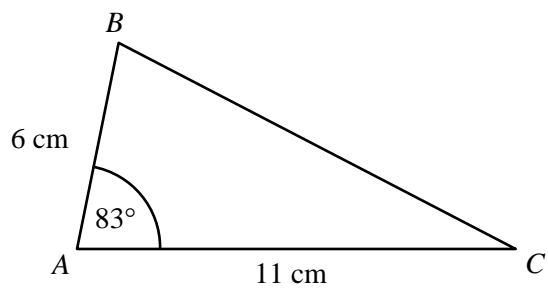
1 Here is triangle *ABC*.

B

6 cm

83°

A   11 cm   *C*

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

....cm^2

(Total for Question 1 is 2 marks)

2 Here is triangle *ABC*.

B

42°   4.4 cm

3.8 cm

C

A

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

....cm^2
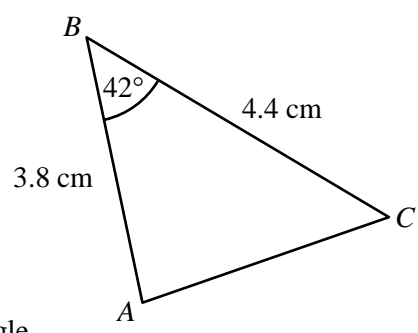
(Total for Question 2 is 2 marks)

3 Here is triangle *ABC*.

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

....cm²
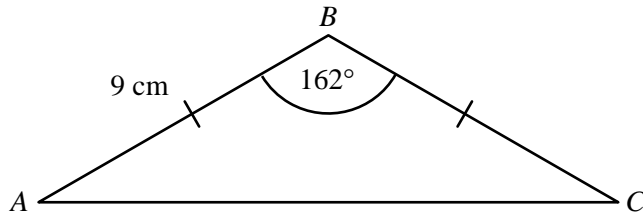
(Total for Question 3 is 2 marks)

4 Here is triangle *ABC*.

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

....cm²
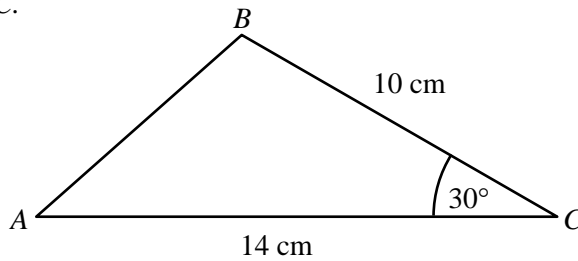
(Total for Question 4 is 3 marks)

5 Here is triangle *ABC*.
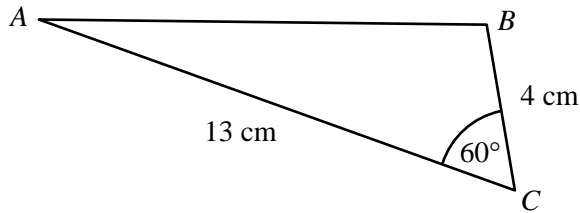
Work out the area of the triangle.
Give your answer in the form $k\sqrt{3}$, where *k* is an integer.

....cm²

(Total for Question 5 is 3 marks)

6 *ABCD* is a parallelogram.
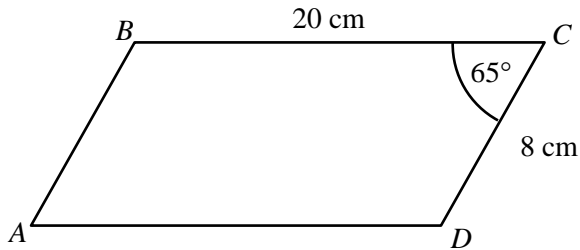
Work out the area of the parallelogram.
Give your answer to 1 decimal place.

....cm²

(Total for Question 6 is 3 marks)

7 Here is triangle *ABC*.
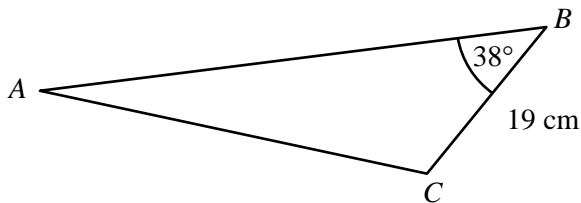
The area of the triangle is 350 cm²
Work out the length of *AB*.
Give your answer to 1 decimal place.

.... cm

(Total for Question 7 is 3 marks)

8 Here is triangle *ABC*.
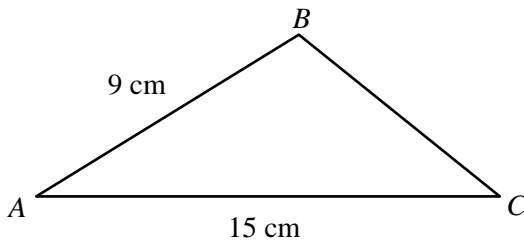
The area of the triangle is 23 cm²
Work out the size of the acute angle, *BAC*.
Give your answer to 1 decimal place.

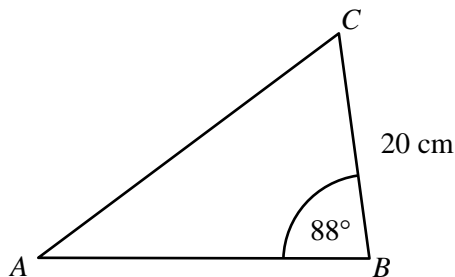..°

(Total for Question 8 is 3 marks)

4

9 Here is triangle *ABC*.

AB : *BC* = 8 : 5
Work out the area of the triangle.
Give your answer to 1 decimal place.

....cm²

(Total for Question 9 is 3 marks)

10 Here is triangle *ABC*.
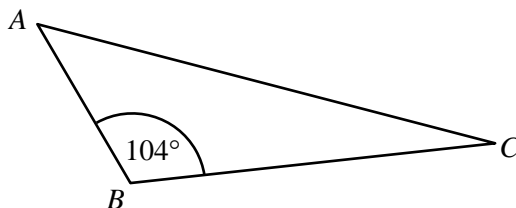
AB : *BC* = 1 : 3
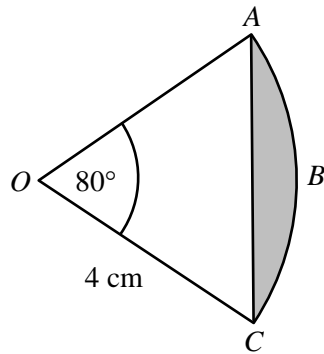The area of triangle *ABC* is 123 cm²
Work out the length of *AB*.
Give your answer to 1 decimal place.

.... cm

(Total for Question 10 is 3 marks)

11 *OABC* is a sector with centre *O*.

A

O 80°

B

4 cm

C

Calculate the area of the shaded region.
Give your answer to 1 decimal place.

....cm²

(Total for Question 11 is 4 marks)

12 *AOB* is an isosceles triangle with *OA = OB*
COD is a sector, centre *O*.

O

86° 8 cm

C

D

3 cm

A

B
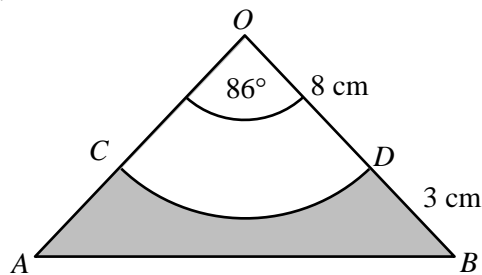
Work out the area of the shaded region.

....cm²
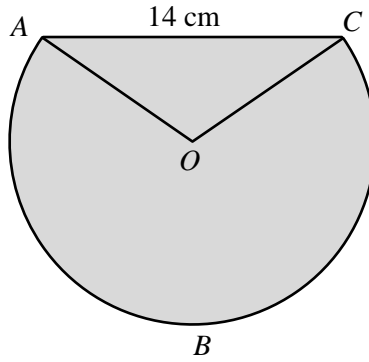
(Total for Question 12 is 4 marks)

13 *ABCDEF* is a triangular prism.
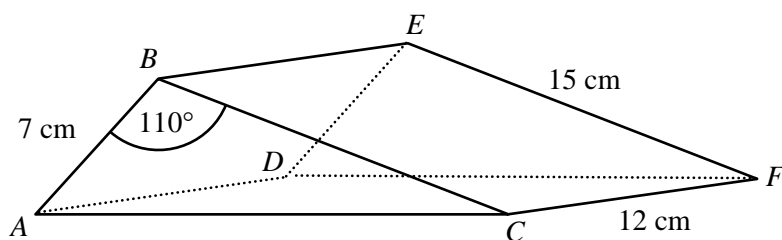
The prism has a mass of 0.5 kg.
Calculate the density of the prism in g/cm³
Give your answer to 3 significant figures.

.... g/cm³

(Total for Question 13 is 5 marks)

14 *ABCO* is a sector with centre *O*.

The perimeter of triangle *AOC* is 30 cm.
Calculate the shaded area.
Give your answer to 1 decimal place.

....cm^2

(Total for Question 14 is 6 marks)