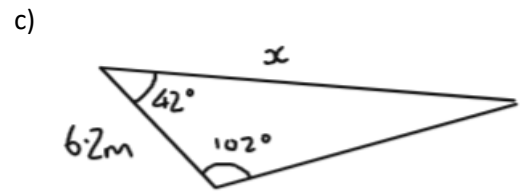
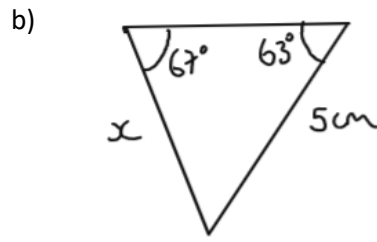
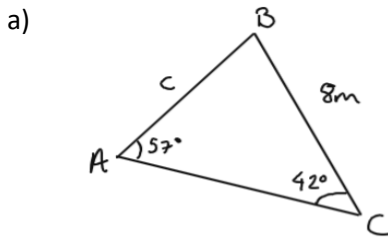


Higher IGCSE week 9 homework

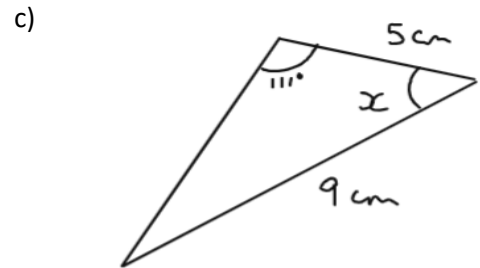
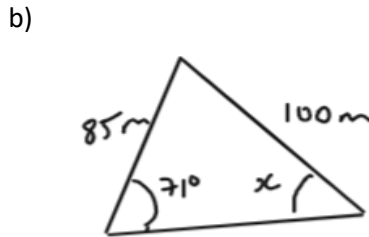
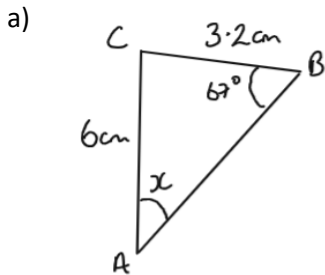
1 Find the missing sides in the following triangles using the Sine Rule

give answers correct to 3 significant figures



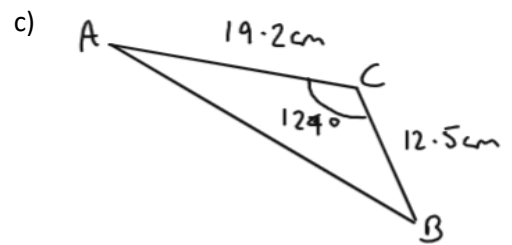
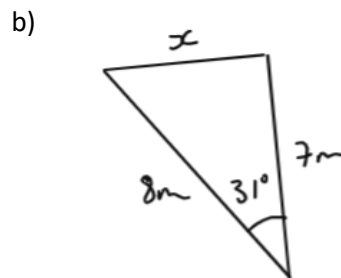
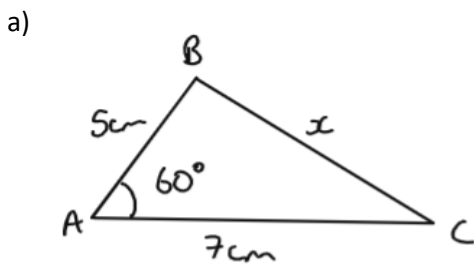
2 Find the missing angles in the following triangles using the Sine rule

give answers correct to 3 significant figures



3 Find the missing sides in the following triangles using the Cosine Rule

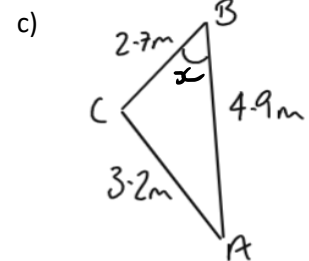
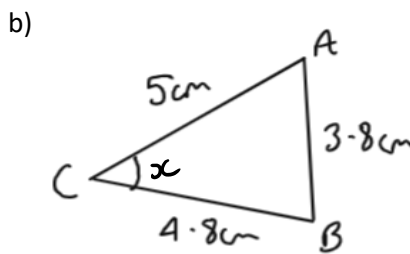
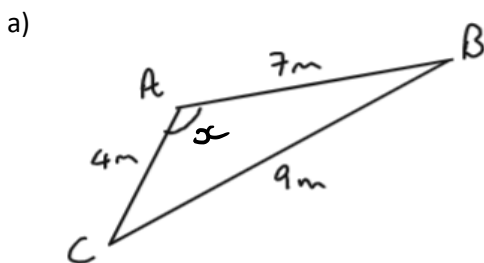
give answers correct to 3 significant figures



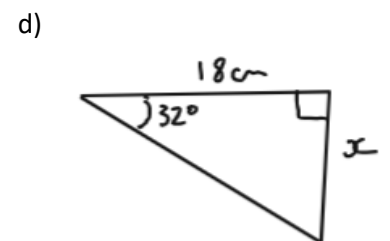
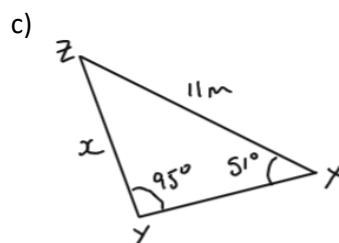
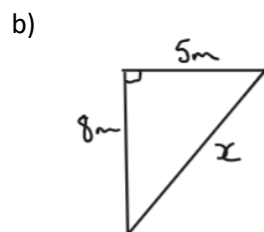
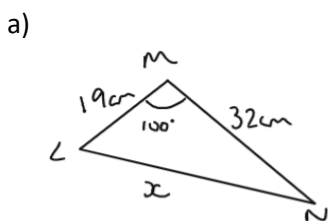
find length AB

4 Find the missing angles in the following triangles using the Cosine rule

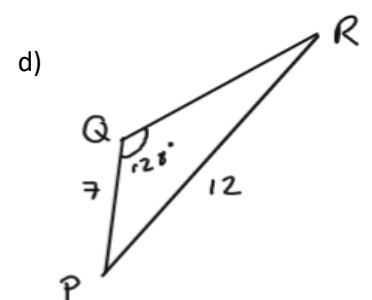
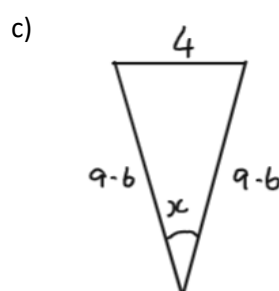
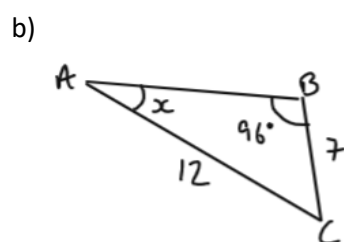
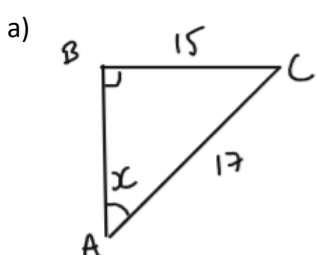
give answers correct to 3 significant figures



5 Find the missing sides on the triangles (make sure you use the correct process)



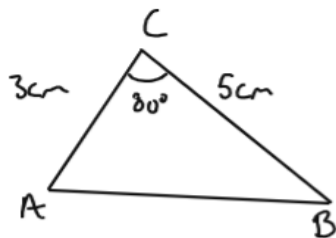
6 Find the missing angles on the triangles (make sure you use the correct process)



find angle RPQ

7 Find the areas of the following triangles

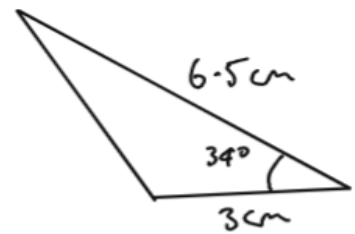
a)



b)

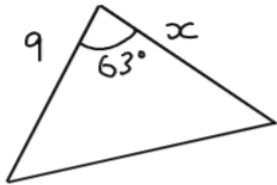


c)



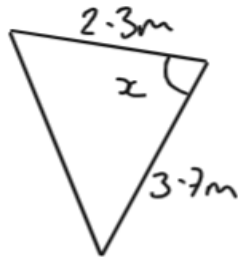
8 Find the missing side lengths or angles when the area is given

a)



Area = 32.1 cm^2

b)



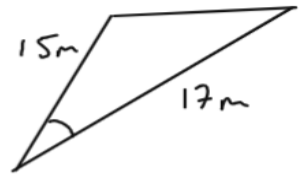
Area = 4.16 m^2

c)



Area = 41.4 cm^2

d)



Area = 78.5 m^2

9 Ship B is 58 km south-east of Ship A. Ship C is 70 km due south of Ship A

a) How far is Ship B from Ship C?

b) What is the bearing of Ship B from Ship C?

(reminder bearings are measured from North and in a clockwise direction)



10

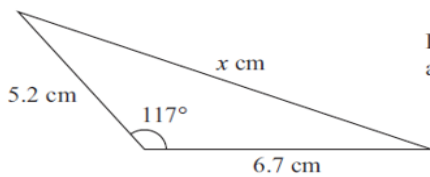


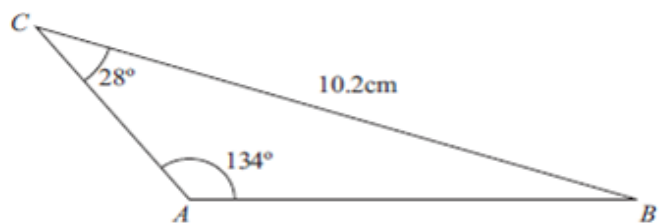
Diagram NOT accurately drawn

Calculate the value of x

Give your answer correct to 3 significant figures

11 Calculate the length of AC

Give your answer correct to 3 significant figures



12 ACD is a triangle and B is a point on AC

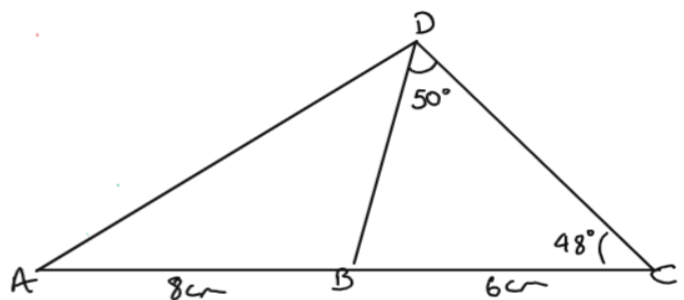
AB = 8 cm and BC = 6 cm

Angle BCD = 48 and BDC = 50

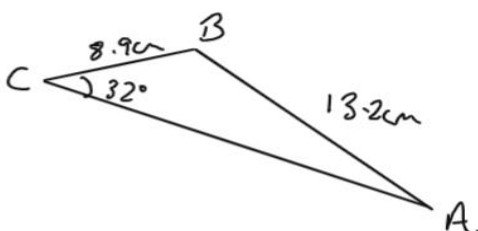
a) find the length of BD

b) Find the length of AD

c) Find the area of triangle ABD



13

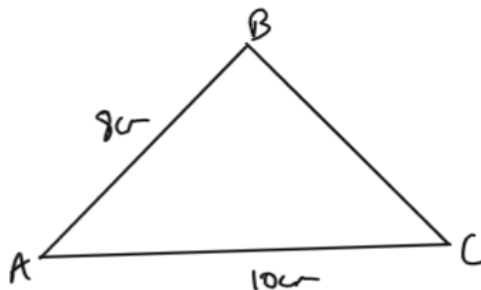


Start by finding angle CAB

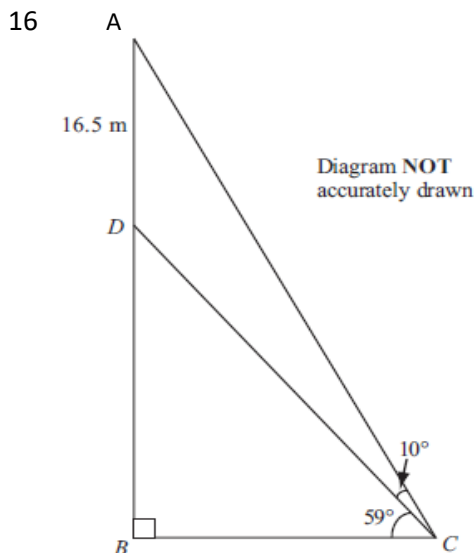
Now calculate the area of triangle ABC

Give your answer correct to 3 significant figures

- 14 The area of the triangle shown is 25 cm^2
 Calculate the perimeter of the triangle
 (hint: you might have to do several processes)

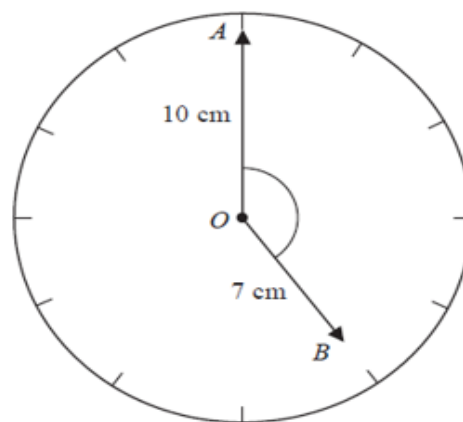


- 15 Find the largest angle in a triangle in which the sides are in the ratio 5 : 6 : 8
 (hint: sketch the triangle and the lengths of the sides)

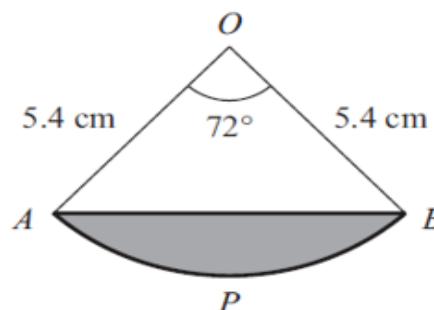


The diagram shows a vertical flagpole in Chennai, India. The point A is at the top of the flagpole. The point B is at the foot of the flagpole. There is a platform at the point D on the flagpole. B and C are points on horizontal ground. $AD = 16.5 \text{ m}$
 The angle of elevation of A from C is 69°
 The angle of elevation of D from C is 59°
 Calculate the height, AB , of the flagpole.
 Give your answer correct to 3 significant figures.

- 17 A circular clock face, centre O , has a minute hand
 $OA = 10 \text{ cm}$
 $OB = 7 \text{ cm}$
 Calculate the length of AB when the hands show 5 o'clock
 Give your answer correct to 3 significant figures



- 18 The diagram shows a sector $OAPB$ of a circle, centre O .
 AB is a chord of the circle.
 $OA = OB = 5.4 \text{ cm}$.
 Angle $AOB = 72^\circ$



Calculate the area of the shaded segment APB .
 Give your answer correct to 3 significant figures.

