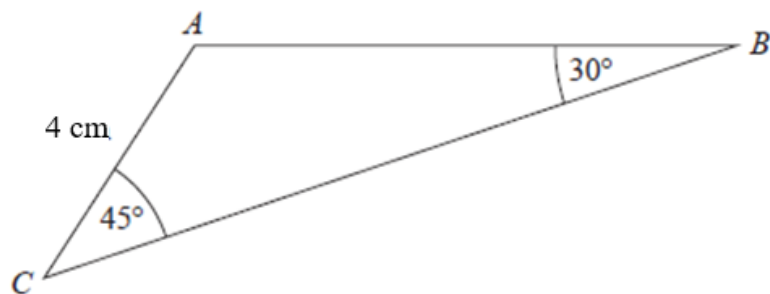


Q1

$ABC$  is a triangle.



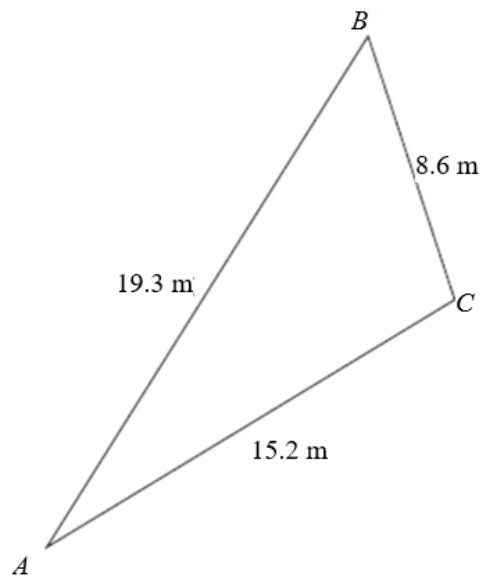
Work out the length of  $AB$ .

..... cm

**(3 marks)**

**QUESTION 2**

Here is triangle  $ABC$ .



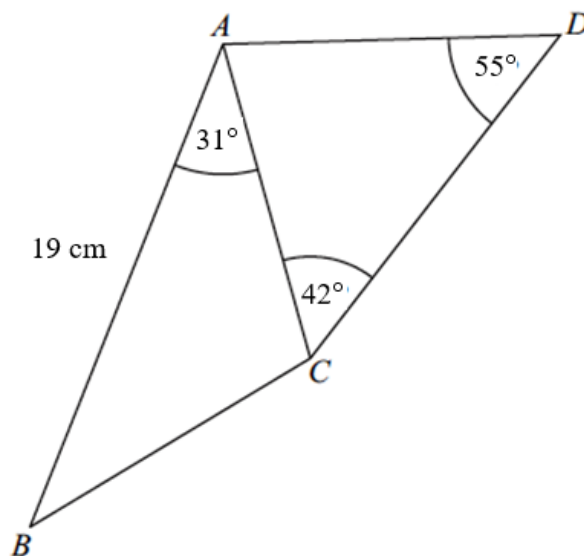
Work out the area of triangle  $ABC$ .  
Give your answer correct to 3 significant figures.

..... m<sup>2</sup>

**(4 marks)**

**Question 3**

$ABCD$  is a quadrilateral.

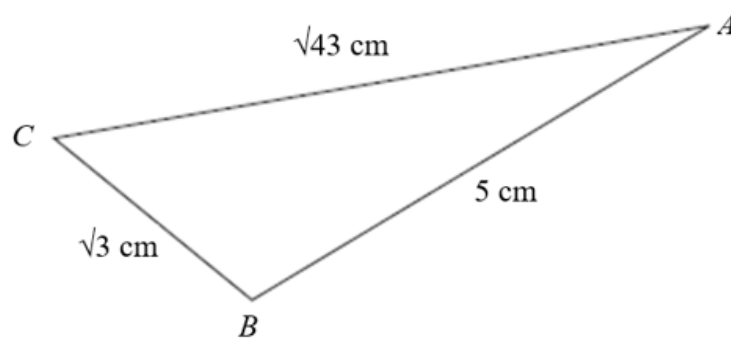


The area of triangle  $ABC$  is  $75\text{ cm}^2$

Calculate the area of triangle  $ACD$ .

Give your answer correct to 3 significant figures.

**[5]**

**Question 4****Do not use a calculator on this question**Here is triangle  $ABC$ .Find the size of angle  $ABC$ .

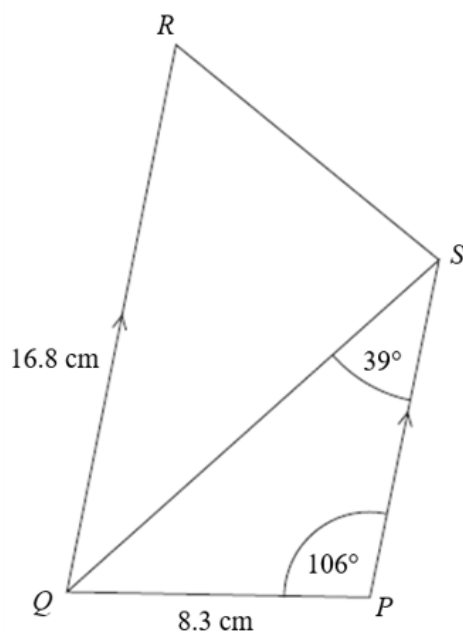
You must show all your working.

.....°

**(4 marks)**

### Question 5

$ABCD$  is a trapezium.



$PS$  is parallel to  $QR$ .

Calculate the area of triangle  $QRS$ .

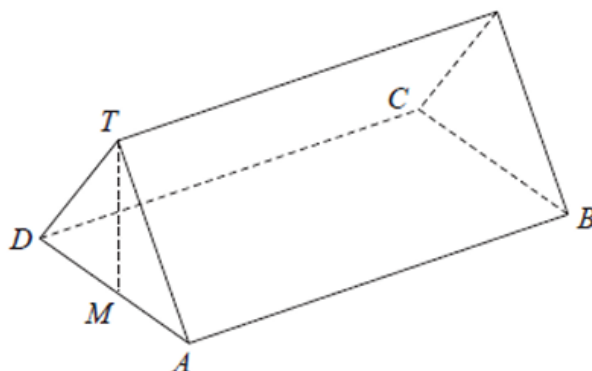
Give your answer correct to 1 decimal place.

.....  $\text{cm}^2$

**(4 marks)**

### Question 6

The diagram shows a triangular prism with a horizontal rectangular base  $ABCD$ .



$M$  is the midpoint of  $AD$ .

The vertex  $T$  of the prism is vertically above  $M$ .

$$AB = 19.8 \text{ cm} \quad BC = 4.8 \text{ cm} \quad MT = 2.9 \text{ cm}$$

$P$  is the point on  $AB$  such that

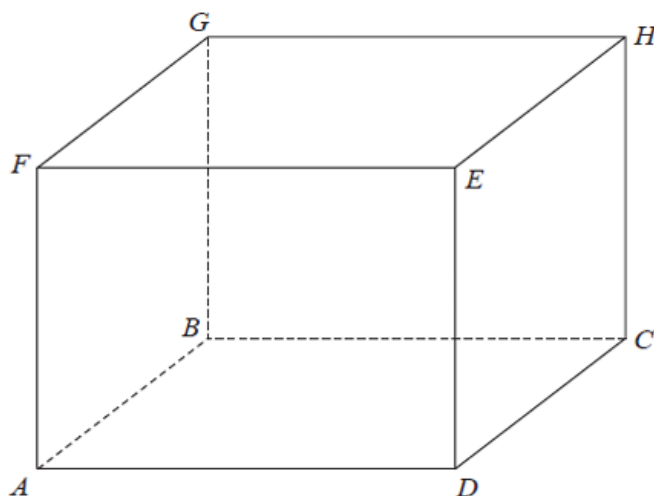
$$AP : PB = 4 : 5$$

Calculate the size of the angle between  $TP$  and the base  $ABCD$  of the prism.  
Give your answer correct to 1 decimal place.

.....(4)

### Question 7

$ABCDEFGH$  is a cuboid.



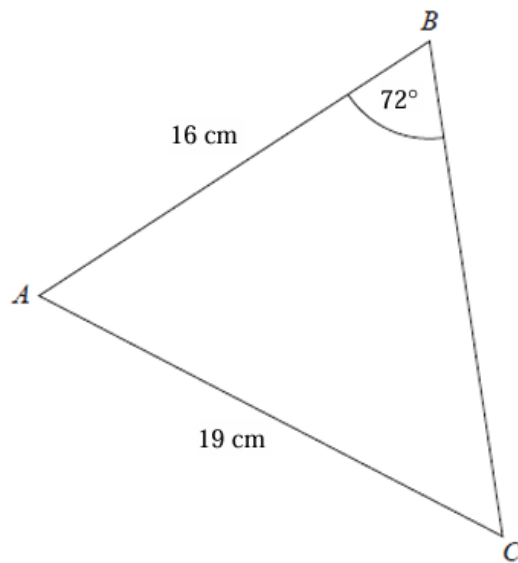
$ED = 5.9$  cm  
 $BE = 11.8$  cm

Work out the size of the angle between  $BE$  and the plane  $ABCD$ .

.....° (3)

**Question 8**

$ABC$  is a triangle.

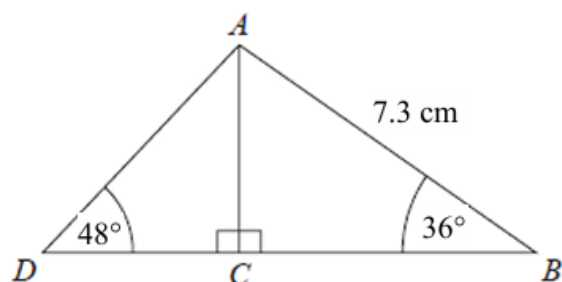


Calculate the size of angle  $BAC$ .  
Give your answer correct to 1 decimal place.

.....<sup>°</sup> (4)

### Question 9

$ABD$  is a triangle.  
 $C$  is a point on  $BD$ .

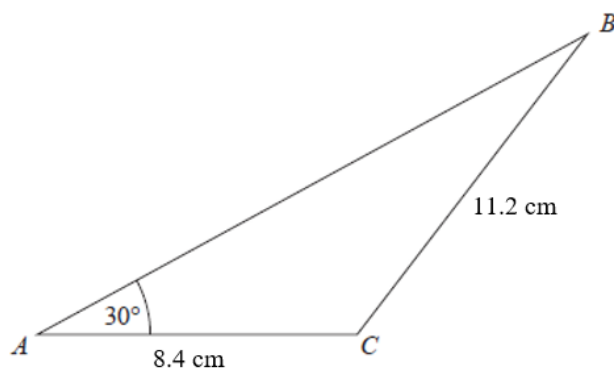


Work out the length of  $DC$ .  
 Give your answer correct to 1 decimal place.

..... cm **(3)**

### Question 10

Here is a triangle  $ABC$ .



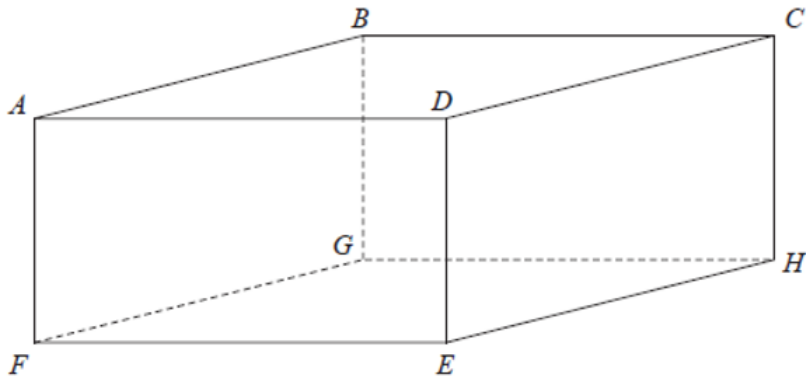
Work out the value of  $\sin ABC$

Give your answer in the form  $\frac{m}{n}$  where  $m$  and  $n$  are integers.

**(4)**

### Question 11

$ABCDEFGH$  is a cuboid.



$$DC = 13 \text{ cm}$$

$$EC = 19 \text{ cm}$$

$$\text{Angle } FGE = 52^\circ$$

Work out the size of angle  $BDG$ .

Give your answer correct to one decimal place.

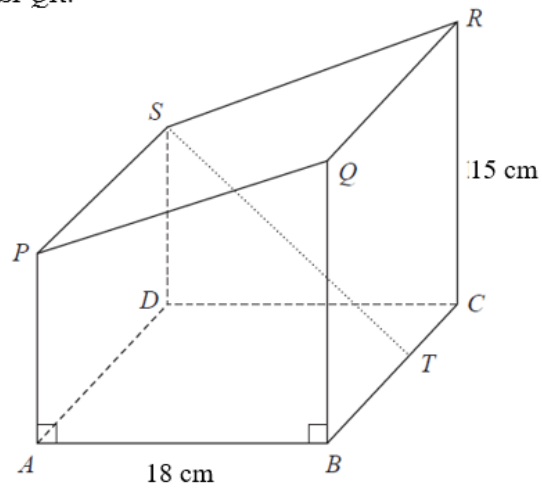


.....°

**(4 marks)**

### Question 11

Here is a prism  $ABCDS PQR$ .



The base  $ABCD$  of the prism is a square of side  $18\text{ cm}$

$T$  is the point on  $BC$  such that  $BT : TC = 5 : 4$

The cross section of the prism is in the shape of a trapezium of area  $234\text{ cm}^2$

$CR = 15\text{ cm}$

Find the size of the angle between the line  $ST$  and the base  $ABCD$ .

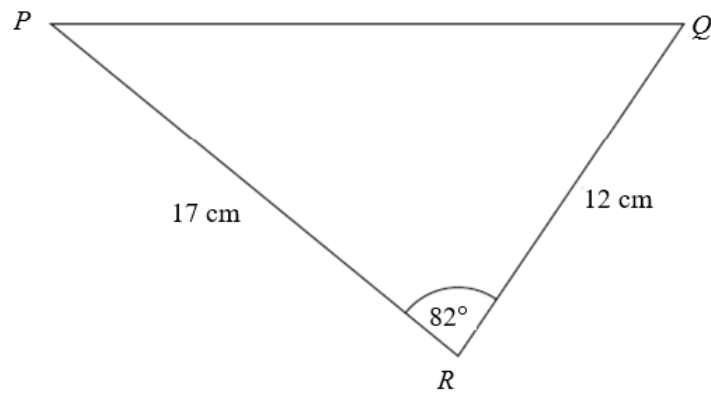
Give your answer correct to 1 decimal place.

.....°

**(5 marks)**

### Question 12

Here is triangle  $PQR$ .



- (a) Find the length of  $PQ$ .  
Give your answer correct to 3 significant figures.

..... cm  
(3)

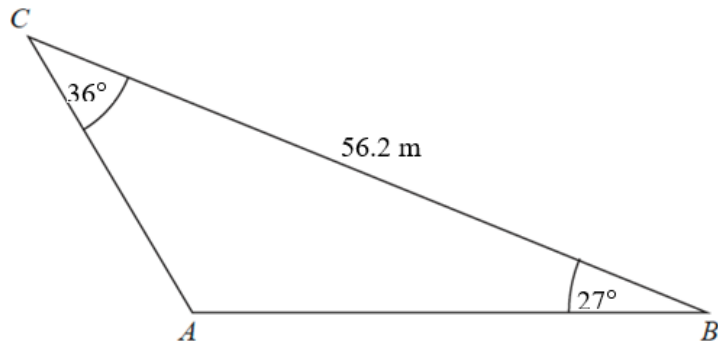
- (b) Find the area of triangle  $PQR$ .  
Give your answer correct to 3 significant figures.

.....  $\text{cm}^2$   
(2)

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**QUESTION 13**

Here is triangle  $ABC$ .



Work out the length of  $AB$ .  
Give your answer correct to 1 decimal place.

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.....(3)