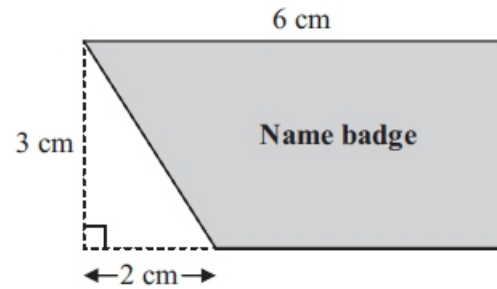


### Using the Formula Sheet (Foundation Tier)

Janice cuts a triangle from a rectangular piece of metal.  
She uses the rest of the metal to make a name badge.

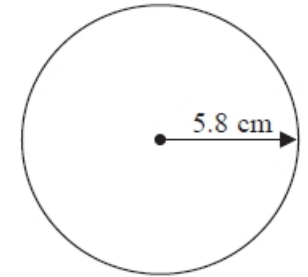
The rectangle has length 6 cm and width 3 cm.  
The right-angled triangle has base 2 cm and height 3 cm.

Work out the area of the name badge.



This circle has a radius of 5.8 cm.

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

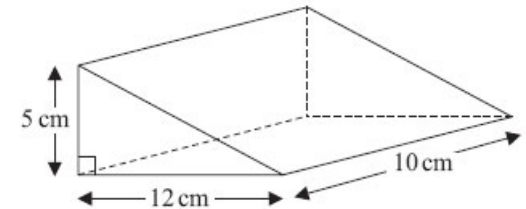


A circle has a diameter of 140 cm.

Work out the circumference of the circle.

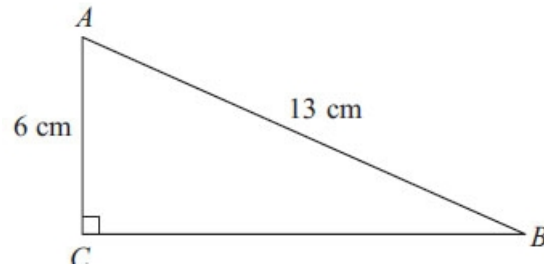
Give your answer correct to 3 significant figures.

Work out the volume of the triangular prism.



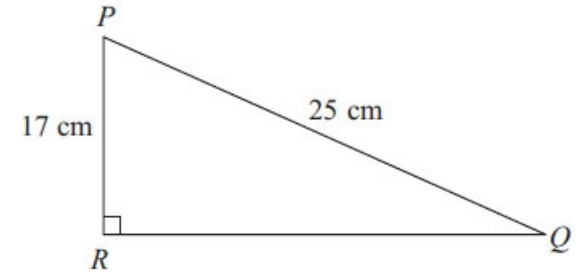
$ABC$  is a right-angled triangle.  
 $AC = 6 \text{ cm}$   $AB = 13 \text{ cm}$

Work out the length of  $BC$ .  
 Give your answer correct to 3 significant figures.



$PQR$  is a right-angled triangle.  
 $PR = 17 \text{ cm}$   $PQ = 25 \text{ cm}$

Work out the size of angle  $RPQ$ .  
 Give your answer correct to 1 decimal place.

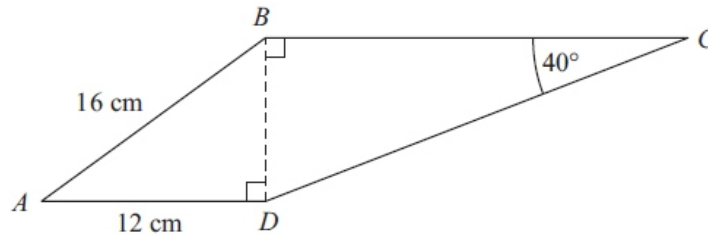


The diagram shows a quadrilateral  $ABCD$ .

$AB = 16 \text{ cm}$ .

$AD = 12 \text{ cm}$ .

Angle  $BCD = 40^\circ$ .  
 Angle  $ADB = \text{angle } CBD = 90^\circ$ .



Calculate the length of  $CD$ . Give your answer correct to 3 significant figures.

There are yellow discs, red discs, blue discs and green discs in a bag.  
 Dinesh is going to take at random a disc from the bag.

The table shows each of the probabilities that Dinesh will take a red disc, or a blue disc, or a green disc.

Colour	yellow	red	blue	green
Probability		0.40	0.25	0.15

Work out the probability that he will take a yellow disc.

Franz invests £1500 at a rate of  $3\frac{1}{2}\%$  per annum compound interest.

Work out the value of his investment after 2 years.

Charlie invests £1200 at 3.5% per annum compound interest.

Work out the value of Charlie's investment after 3 years.