

Diagram NOT  
accurately drawn

$ABC$  is a triangle.  
 $D$  is a point on  $AB$ .  
 $CD$  is perpendicular to  $AB$ .  
 $AD = 7.2\text{ cm}$ ,  $DB = 3.9\text{ cm}$ ,  $AC = 8.3\text{ cm}$ .

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

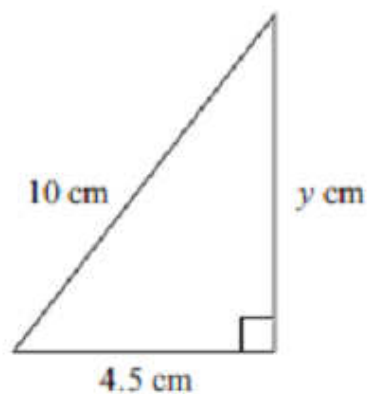


Diagram NOT  
accurately drawn

Calculate the value of  $y$ .  
 Give your answer correct to 3 significant figures.

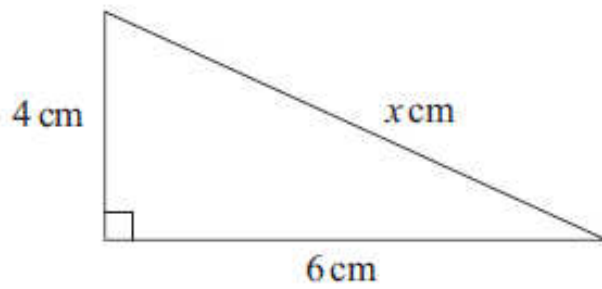


Diagram NOT  
accurately drawn

Calculate the value of  $x$ .

Give your answer correct to 3 significant figures.

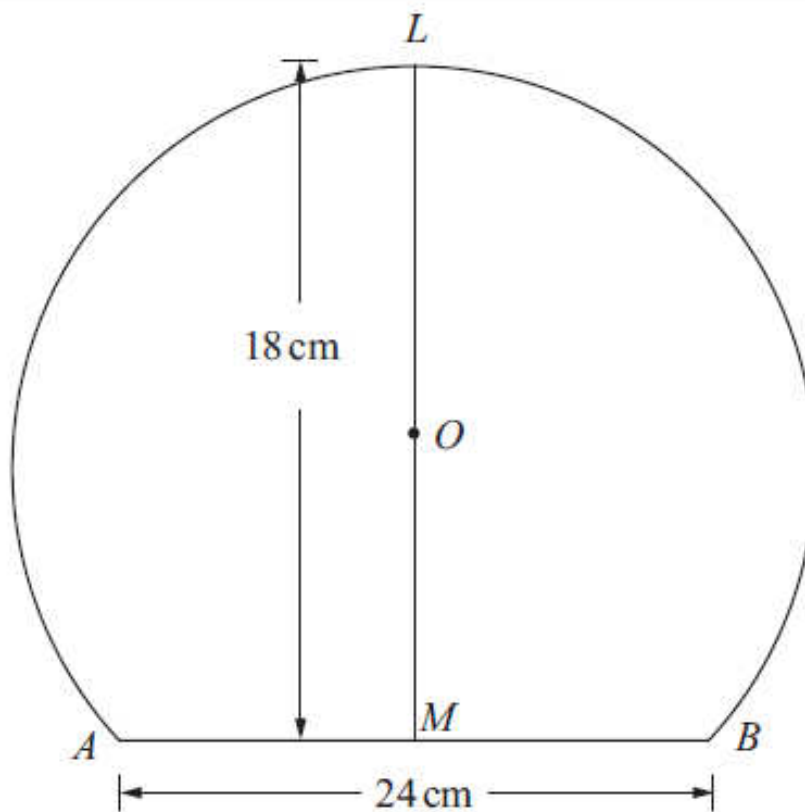


Diagram NOT  
accurately drawn

$A$ ,  $B$  and  $L$  are points on a circle, centre  $O$ .

$AB$  is a chord of the circle.

$M$  is the midpoint of  $AB$ .

$LOM$  is a straight line.

$AB = 24$  cm.

$LM = 18$  cm.

Calculate the diameter of the circle.

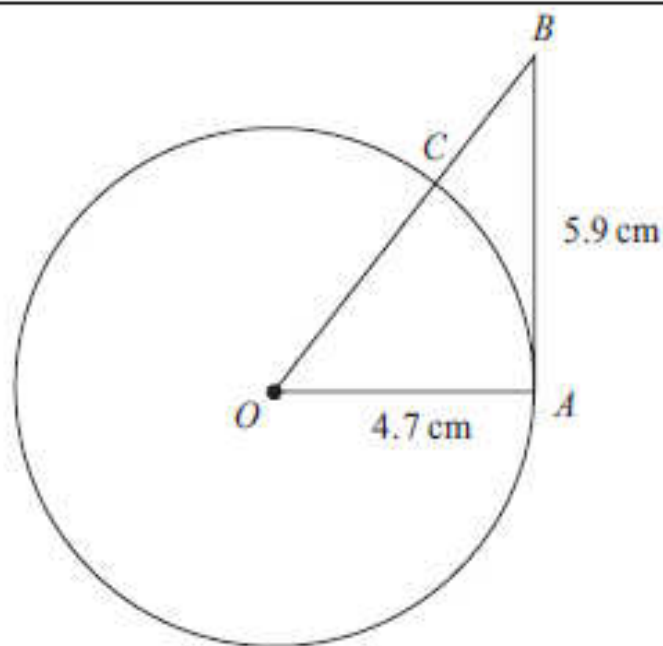


Diagram **NOT** accurately drawn

$A$  is a point on a circle with centre  $O$  and radius  $4.7\text{ cm}$ .  
 $AB$  is the tangent to the circle at  $A$ .  
 $AB = 5.9\text{ cm}$ .  
 $OB$  intersects the circle at  $C$ .

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

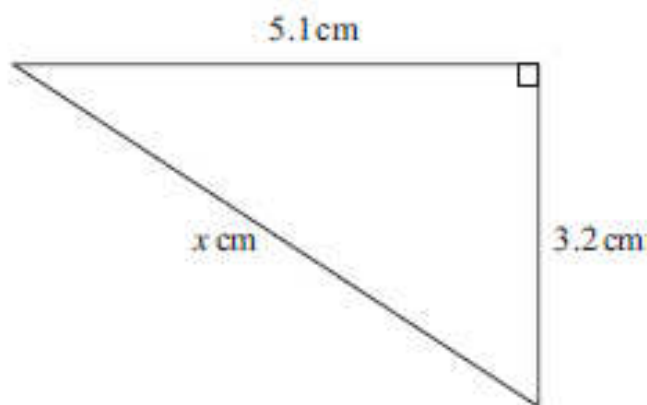


Diagram **NOT** accurately drawn

Calculate the value of  $x$ .  
 Give your answer correct to 3 significant figures.