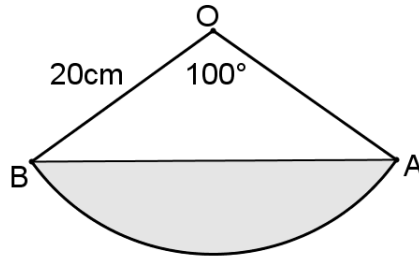
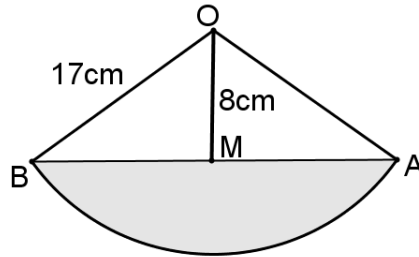


### Segments and chords

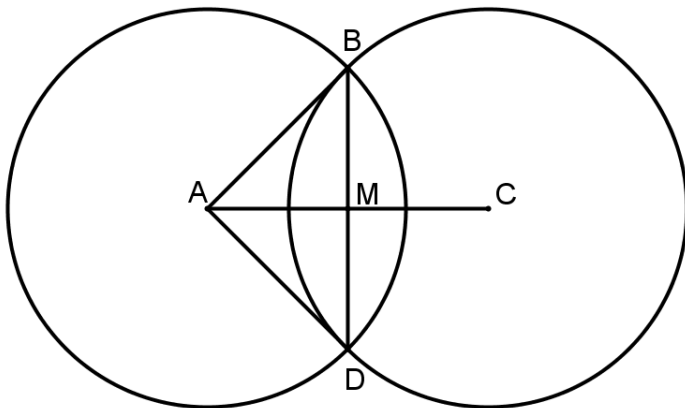
- 1) In this diagram, find:  
 (a) the area of the shaded segment.  
 (b) the length of the *chord* AB  
 (c) the length of the *arc* AB  
 (d) the perimeter of the shaded segment



- 2) In this diagram, find:  
 (a) the angle BOM  
 (b) the area of the shaded segment  
 (c) the length of the chord AB

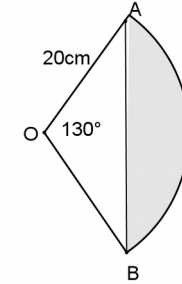
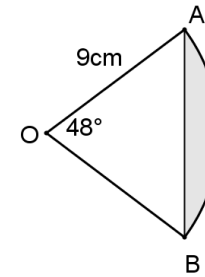


- 3) The diagram below shows two overlapping circles with the same radius. The length of the chord BD is 12cm, and the distance between the centres of the circles (AC) is 16cm. Find the area of the overlap between the two circles



### More Segments and chords

- 1) For each of the following shapes, find the area of the shaded segment:



- 2) In each of the diagrams above, find the length of the chord AB.

- 3) The diagram on the right shows the cross-section of a drainage tunnel, with water running along the bottom.

- (a) Find the length OM  
 (b) Find the angle BOM  
 (c) Find the area of the shaded segment  
 (d) Find the width of the surface of the water (ie the length BA).

