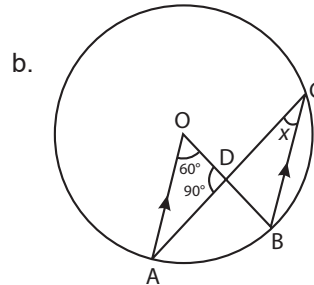
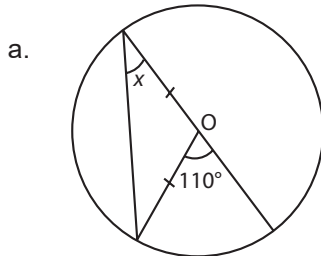
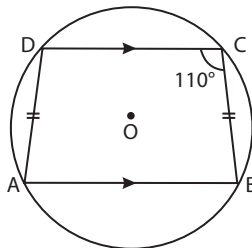


## Worksheet

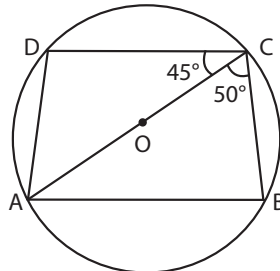
- A circle with centre  $O$  and radius  $17$  cm has a chord  $AB$  at a distance of  $8$  cm. Find the length of the chord.
- Find the angle  $x$  in each figure, where  $O$  is the centre of the circle.



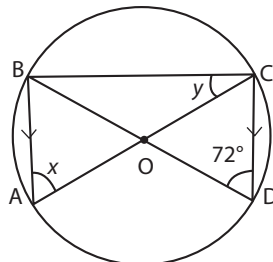
- Triangle  $ABC$  is inscribed in a circle with centre  $O$ .  $BC$  passes through the centre and  $A$  is any point on the circle. Find  $\angle ABC$ , if  $\angle ACB = 50^\circ$ .
- A circle with centre  $O$  is shown below where  $AB$  and  $CD$  are parallel to each other and  $\angle BCD = 110^\circ$ . Find
  - $\angle BAD$
  - $\angle ABC$
  - $\angle CDA$



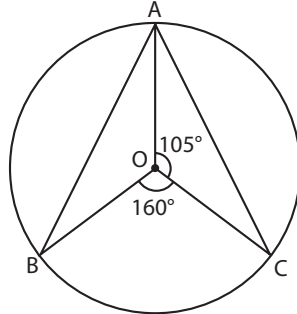
- In the given figure,  $\angle ACB = 50^\circ$  and  $\angle ACD = 45^\circ$ . Find  $\angle BAD$ .



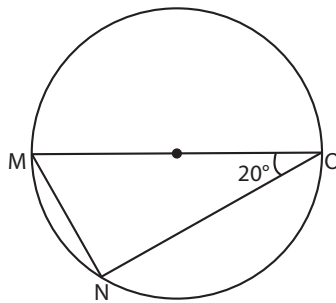
- $ABCD$  are the points on the circumference of the circle as given and  $AC$  is the diameter of the circle. If  $\angle BDC = 72^\circ$ , find  $x$  and  $y$ .



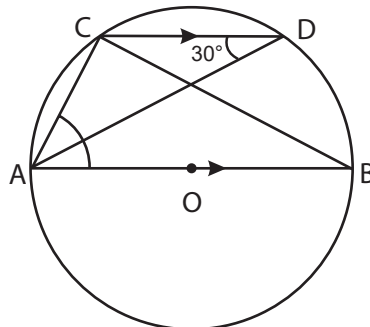
7. If  $O$  is the centre of the circle in the given figure, find  $\angle ABO$  and  $\angle ACO$ .



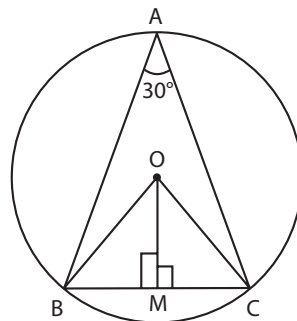
8. Point  $M$ ,  $N$  and  $O$  lie on a circle such that  $MO$  is the diameter. If  $\angle NOM = 20^\circ$ , find  $\angle NMO$ .



9. In the given figure,  $AB$  is the diameter of the circle. If  $\angle CDA = 30^\circ$ ,  $AD$  is the angle bisector of  $\angle CAB$  and  $CD \parallel AB$ , find the  $\angle ABC$ .



10. In the given figure,  $\angle BAC = 30^\circ$ . If  $OM \perp BC$ , show that  $\angle BOM = 30^\circ$ .



## Answers to Worksheet

- |                                    |                  |                         |                             |
|------------------------------------|------------------|-------------------------|-----------------------------|
| 1. 30 cm                           | 2. a. $55^\circ$ | b. $30^\circ$           | 3. $40^\circ$               |
| 4. $70^\circ, 70^\circ, 110^\circ$ | 5. $85^\circ$    | 6. $72^\circ, 18^\circ$ | 7. $42.5^\circ, 37.5^\circ$ |
| 8. $70^\circ$                      | 9. $30^\circ$    |                         |                             |