# SARASWATI BAL MANDIR, PASCHIM VIHAR <br> ASSIGNMENT <br> CLASS: IX <br> SUBJECT: MATHEMATICS CHAPTERS - CIRCLES 

1. Find the length of a chord which is at a distance of 5 cm from the centre of a circle of radius 13 cm .
2. Two concentric circles with centre $O$ have $A, B, C, D$ as the points of intersection with the line $L$. If $A D=12 \mathrm{~cm}$ and $B C=8 \mathrm{~cm}$ find the length of the $A B, C D, A C$ and $B D$.

3. The chord ED is parallel to the diameter AC of the circle. Given $\angle \mathrm{CBE}=65^{\circ}$, calculate $\angle \mathrm{DEC}$.

4. A quadrilateral $A B C D$ is inscribed in a circle such that $A B$ is a diameter and $\angle A D C=$ $130^{\circ}$. Find $\angle B A C$.
5. ABCD is a cyclic quadrilateral. $\angle \mathrm{BCD}=100^{\circ}$ and $\angle \mathrm{ABD}=70^{\circ}$. Find $\angle \mathrm{ADB}$.

6. $O$ is the centre of the circle and $\angle D A B=50^{\circ}$. Calculate the values of $x$ and $y$.

7. If ABC is an equilateral triangle. Find $\angle \mathrm{BDC}$ and $\angle \mathrm{BEC}$.

8. $O$ is the centre of the circle. If $\angle C E A=30^{\circ}$, find the values of $x, y$ and $z$.

9. ABCD is a cyclic quadrilateral in which AC and BD are its diagonals. If $\angle \mathrm{DBC}=55^{\circ}$ and $\angle B A C=45^{\circ}$, find $\angle B C D$.

