

**BCM SCHOOL LUDHIANA**  
**ASSIGNMENT CLASS XI**  
**CONIC SECTION**

1	If a circle passes through the points $(0, 0)$ , $(a, 0)$ and $(0, b)$ , then find the coordinates of its centre
2	Find the equation of the circle which touches X-axis and whose centre is $(1, 2)$ .
3	If the lines $3x - 4y + 4 = 0$ and $6x - 8y - 7 = 0$ are tangents to a circle, then find the radius of the circle.
4	Find the equation of a circle which touches both the axes and the line $3x - 4y + 8 = 0$ and lies in the third quadrant.
5	If one end of a diameter of the circle $x^2 + y^2 - 4x - 6y + 11 = 0$ is $(3, 4)$ , then find the coordinate of the other end of the diameter.
6	Find the equation of the circle having $(1, -2)$ as its centre and passing through point of the intersection of two lines $3x + y = 14$ and $2x + 5y = 18$ .
7	Find the equation of a circle concentric with the circle $x^2 + y^2 - 6x + 12y + 15 = 0$ and has double of its area.
8	If the latus rectum of an ellipse is equal to half of minor axis, then find its eccentricity.
9	Find the length of the line segment joining the vertex of the parabola $y^2 = 4ax$ and a point on the parabola, where the line segment makes an angle $\theta$ to the X-axis.
10	If the lines $2x - 3y = 5$ and $3x - 4y = 7$ are the diameters of a circle of area 154 sq units, then find the equation of the circle.
11	A man running in a race course notes that the sum of the distances of the two flag posts from him is always 12 m & the distance between the flag posts is 10 m. find the equation of the path traced by the man.
12	Find the equation of the curve formed by the set of all these points the sum of whose distance from the points $A(4,0,0)$ & $B(-4,0,0)$ is 10 units.