

6F Finding the Centre from Chords

1. The points $A(-8,1)$, $B(4,5)$ and $C(-4,9)$ lie on the circle, as shown in the diagram.

a) Show that AB is a diameter of the circle.

b) Find an equation of the circle

2. The points $P(3,16)$, $Q(11,12)$ and $R(-7,6)$ lie on the circumference of a circle. The equation of the perpendicular bisector of PQ is $y = 2x$.
- a) Find the equation of the perpendicular bisector of PR

b) Find the coordinates of the centre of the circle

c) Work out the equation of the circle