

6.5) Circles and triangles

Worked example

The points $A(-1,8)$, $B(-5, -4)$, $C(-9,4)$ lie on a circle.

- Show that AB is a diameter of the circle.
- Hence find the equation of the circle

Your turn

The points $A(-8,1)$, $B(4,5)$, $C(-4,9)$ lie on a circle.

- Show that AB is a diameter of the circle.
- Hence find the equation of the circle

a) Shown

b) $(x + 2)^2 + (y - 3)^2 = 40$

Worked example

The points $A(0,2)$, $B(2,0)$, $C(8,18)$ lie on the circumference of a circle.

Determine the equation of the circle.

Your turn

The points $A(3,16)$, $B(11,12)$, $C(-7,6)$ lie on the circumference of a circle.

Determine the equation of the circle.

$$(x - 3)^2 + (y - 6)^2 = 100$$