

Fill in the Blanks

Equation of a Circle

Equation in Factorised Form	Equation in Expanded Form	Centre of Circle	Radius of Circle
$(x + 2)^2 + (y + 5)^2 = 9$	$x^2 + y^2 + 4x + 10y + 20 = 0$	$(-2, -5)$	3
$(x - 3)^2 + (y + 2)^2 = 25$	$x^2 + y^2 - 6x + 4y - 12 = 0$	$(3, -2)$	5
$x^2 + (y - 1)^2 = 4$	$x^2 + y^2 - 2y - 3 = 0$	$(0, 1)$	2
$(x + 1)^2 + (y - 4)^2 = 100$	$x^2 + y^2 + 2x - 8y - 83 = 0$	$(-1, 4)$	10
$(x + 6)^2 + y^2 = 25$	$x^2 + y^2 + 12x + 11 = 0$	$(-6, 0)$	5
$(x - 4)^2 + (y - 2)^2 = 15$	$x^2 + y^2 - 8x - 4y + 5 = 0$	$(4, 2)$	$\sqrt{15}$
$(x + 1)^2 + (y + 3)^2 = 16$	$x^2 + y^2 + 2x + 6y - 6 = 0$	$(-1, -3)$	4
$(x - 4)^2 + (y + 5)^2 = 81$	$x^2 + y^2 - 8x + 10y - 40 = 0$	$(4, -5)$	9
$\left(x - \frac{1}{2}\right)^2 + \left(y - \frac{3}{2}\right)^2 = 4$	$x^2 + y^2 - x - 3y - \frac{3}{2} = 0$	$\left(\frac{1}{2}, \frac{3}{2}\right)$	2
$\left(x - \frac{5}{2}\right)^2 + (y - 6)^2 = \frac{49}{4}$	$x^2 + y^2 - 5x - 12y + 30 = 0$	$\left(\frac{5}{2}, 6\right)$	$\frac{7}{2}$