MEI Pure Mathematics Core 1

Co-ordinate geometry

Ex 2E

(5) $x^2 + y^2 + 2x - 4y + 1 = 0$

Rewrite as

$x^2 + 2x + y^2 - 4y + 1 = 0$

$(x+1)^2 - 1 + (y-2)^2 - 4 + 1 = 0$

$(x+1)^2 + (y-2)^2 = 4$

$r = 2$, Centre $(-1, 2)$