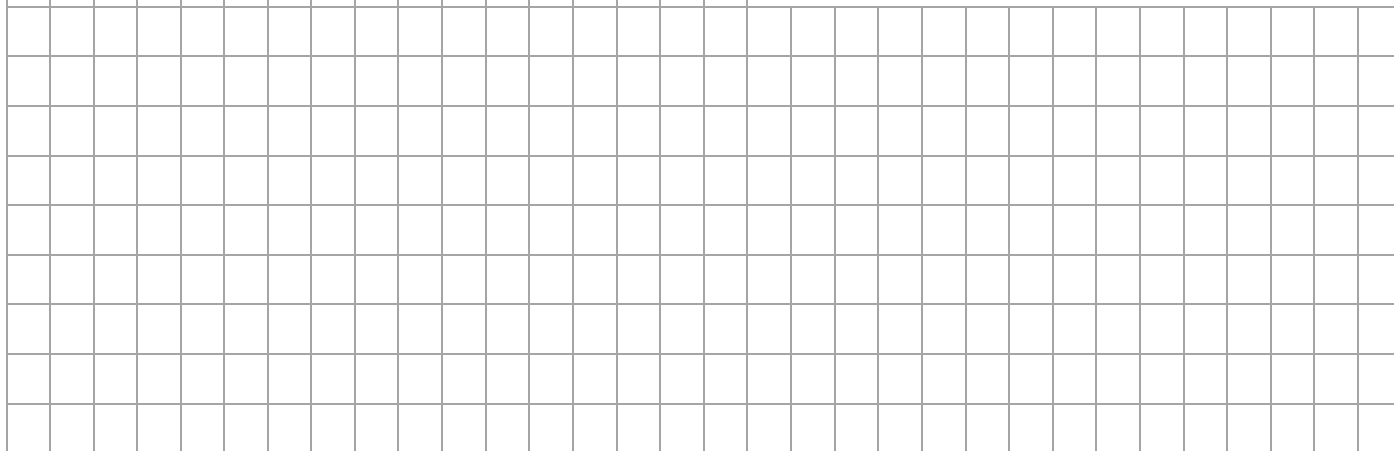
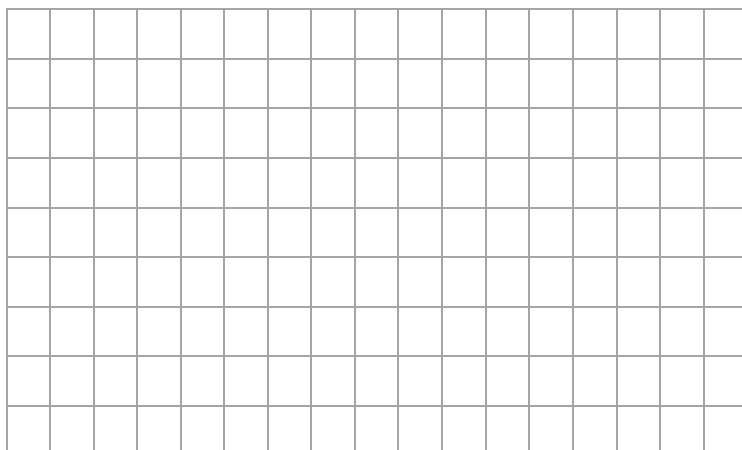
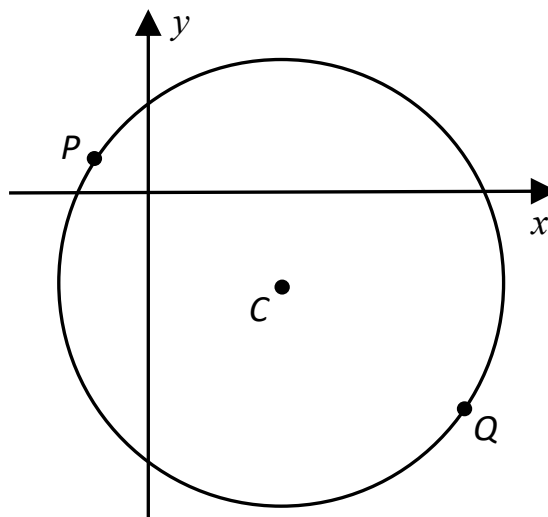


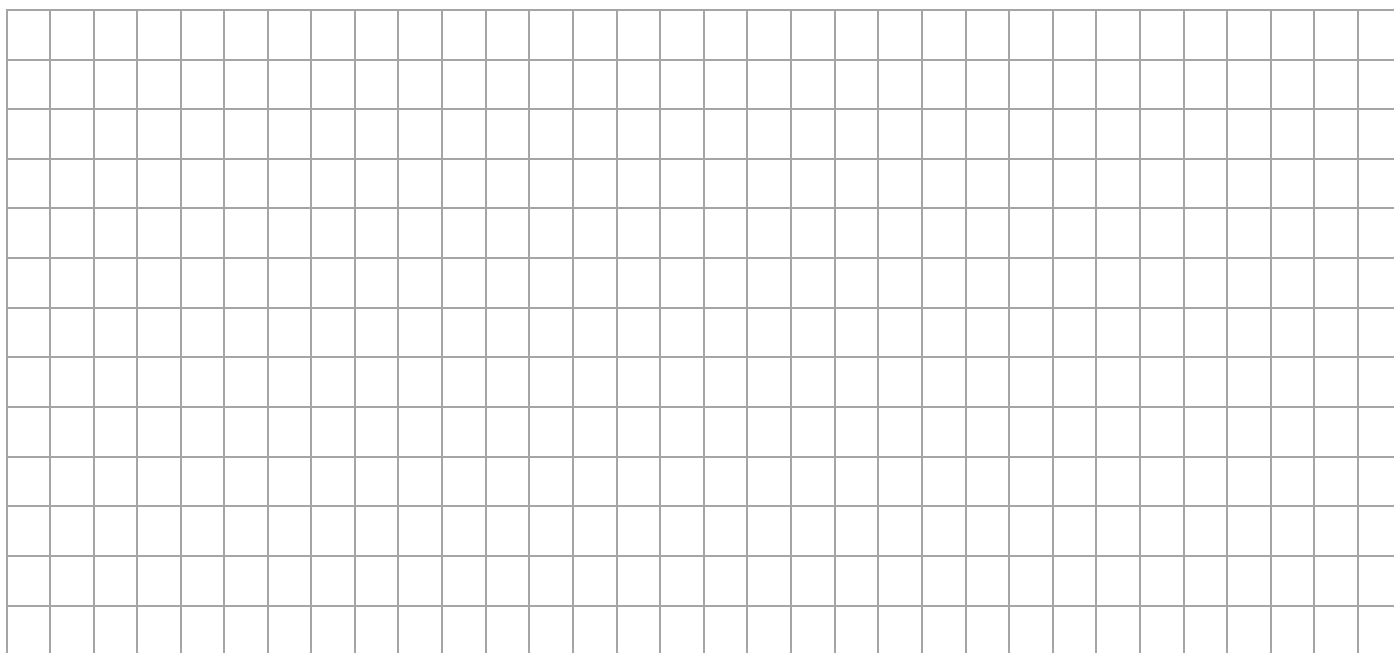
The circle C has equation $x^2 + y^2 - 6x + 4y = 12$

(a) Find the centre and the radius of C .



The point $P(-1, 1)$ and the point $Q(7, -5)$ both lie on C .

(b) Show that PQ is a diameter of C .



The point R lies on the positive y -axis and the angle $PRQ = 90^\circ$.

(c) Show that the coordinates of R are $(0,2)$.

