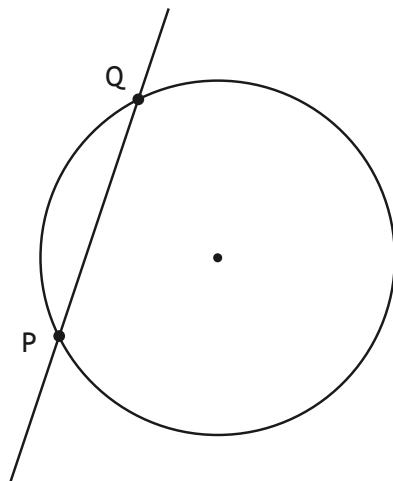


9. The line $y = 3x + 7$ intersects the circle $x^2 + y^2 - 4x - 6y - 7 = 0$ at the points P and Q.

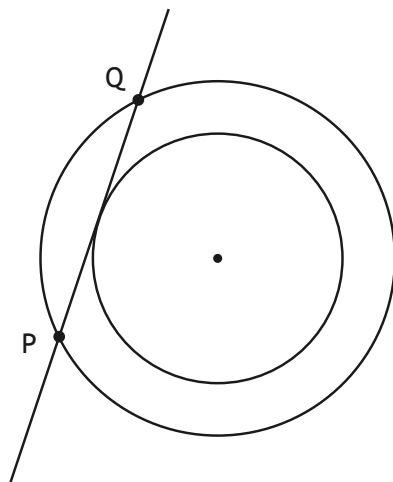


- (a) Find the coordinates of P and Q.

5

PQ is a tangent to a second, smaller circle.

This circle is concentric with the first.



- (b) Determine the equation of the smaller circle.

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