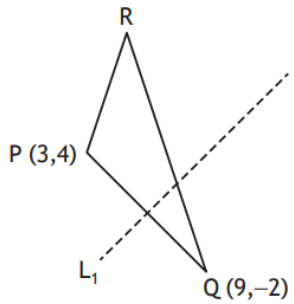
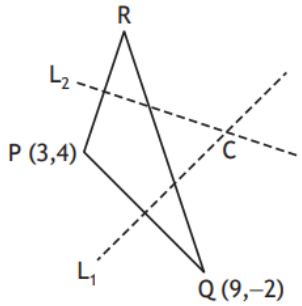
Higher Maths
SQA 2018 Paper 2
Question 5

PQR is a triangle with P(3,4) and Q(9,–2).



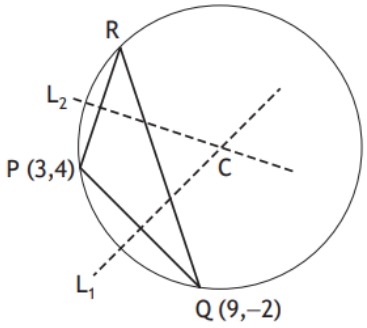
(a) Find the equation of L_1, the perpendicular bisector of PQ. **3**

The equation of L_2, the perpendicular bisector of PR is $3y + x = 25$.



(b) Calculate the coordinates of C, the point of intersection of L_1 and L_2. **2**

C is the centre of the circle which passes through the vertices of triangle PQR.



(c) Determine the equation of this circle. **2**

Answers: (a) $y = x - 5$ (b) $(10, 5)$ (c) $(x - 10)^2 + (y - 5)^2 = 50$