

9 The points P and Q have coordinates $(-6, 15)$ and $(12, 19)$ respectively.

9 (a) (i) Find the coordinates of the midpoint of PQ

[1 mark]

9 (a) (ii) Find the equation of the perpendicular bisector of PQ

Give your answer in the form $ax + by = c$ where a , b and c are integers.

[4 marks]

9 (b) (i) A circle passes through the points P and Q

The centre of the circle lies on the line with equation $2x - 5y = -30$

Find the equation of the circle.

[3 marks]

9 (b) (ii) The circle intersects the coordinate axes at n points.

State the value of n

[1 mark]