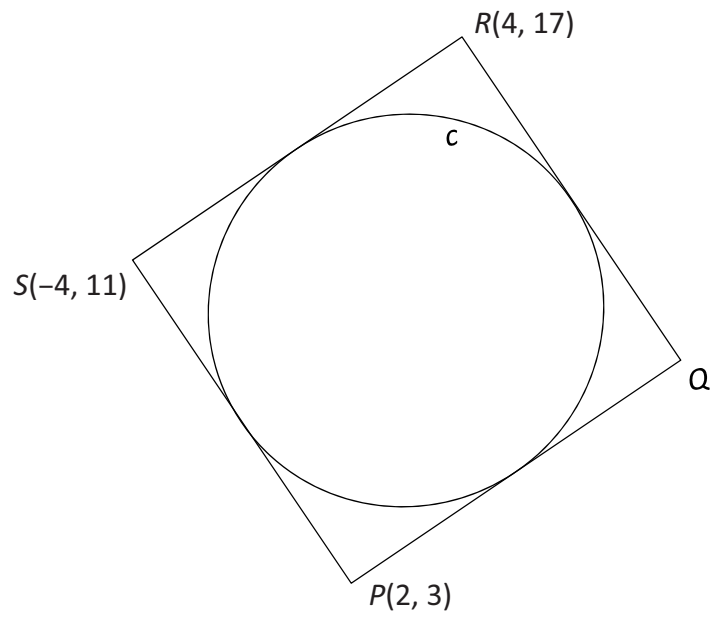


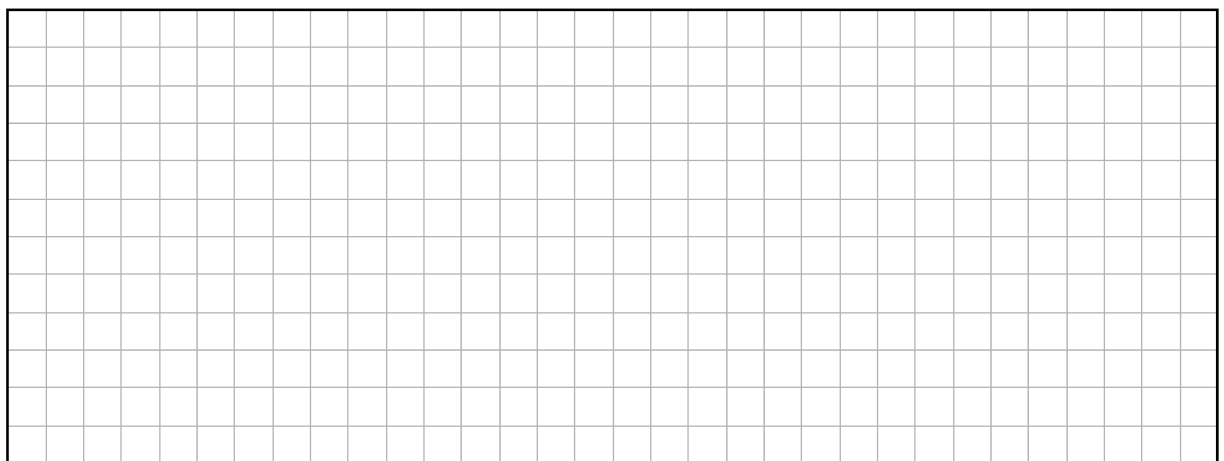
Question 4

(25 marks)

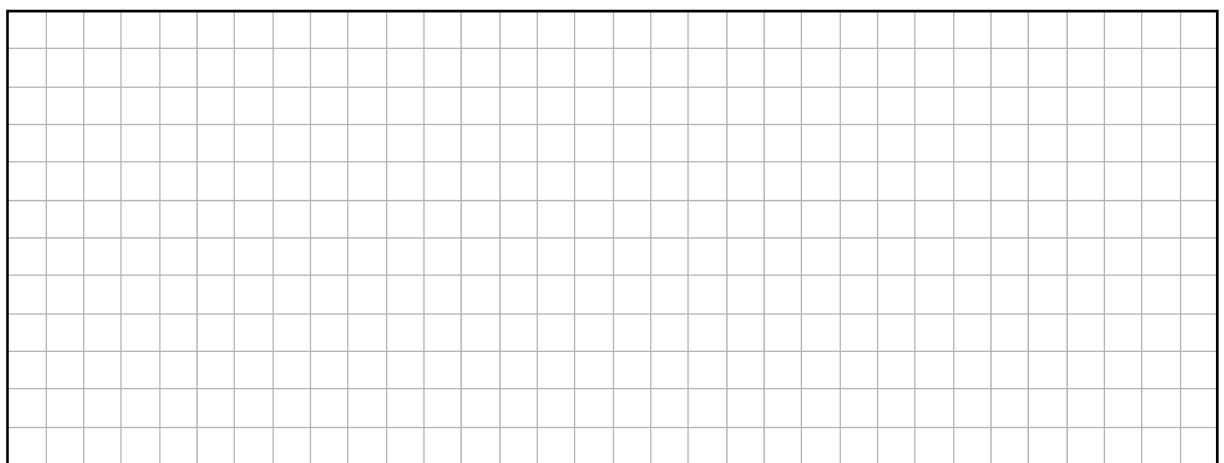
The circle c is enclosed in the square $PQRS$ and touches all four sides, as shown in the diagram. The co-ordinates of three of the vertices are $P(2, 3)$, $R(4, 17)$, and $S(-4, 11)$.



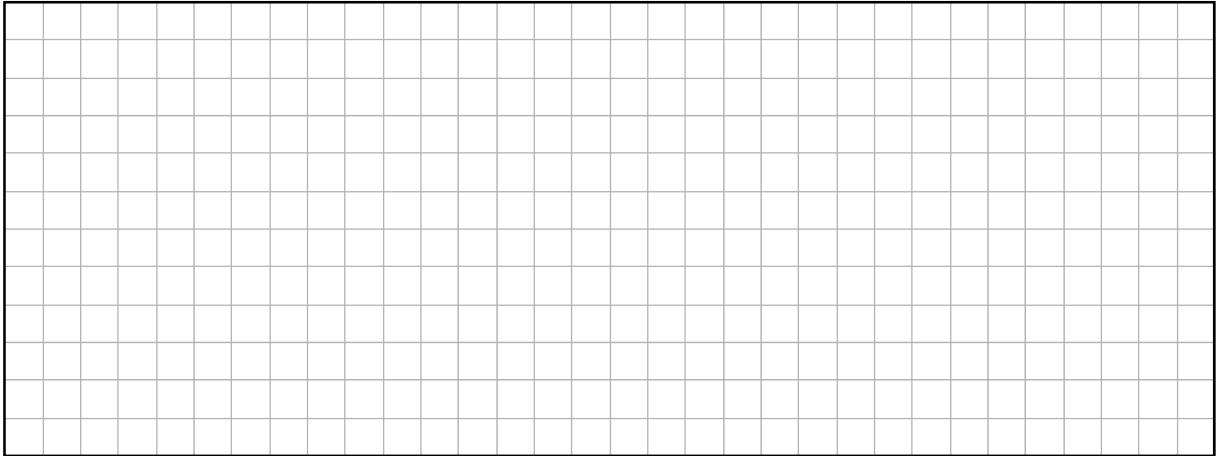
(a) Find the co-ordinates of Q .



(b) Find the co-ordinates of the centre of c .



(c) Find the length of the **radius** of c .



(d) Find the equation of circle c .

