P and Q are the points (4, 10) and (6, 2) respectively.
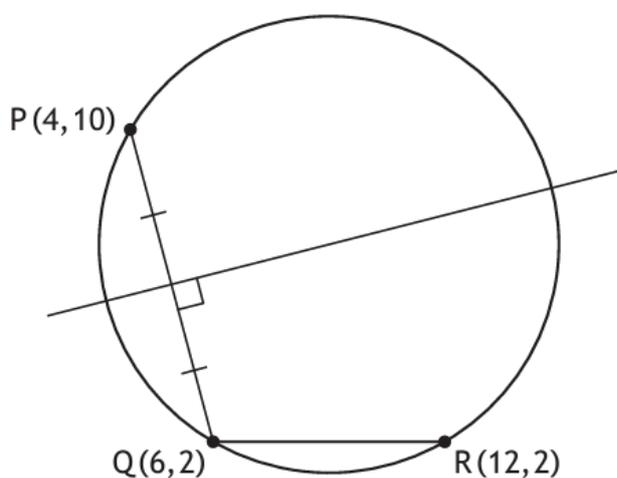
(a)   Find the equation of the perpendicular bisector of PQ.   **4**

The point R has coordinates (12, 2).

A circle passes through the points P, Q and R.

The chord QR is horizontal.

(b)   Find the equation of the circle.   **4**

Answers:

(a) $4y = x + 19$
       or equivalent

(b) $(x-9)^2 + (y-7)^2 = 34$