

2016 P2 Q4

4. Circles C_1 and C_2 have equations $(x+5)^2 + (y-6)^2 = 9$ and $x^2 + y^2 - 6x - 16 = 0$ respectively.

(a) Write down the centres and radii of C_1 and C_2 .

(b) Show that C_1 and C_2 do not intersect.

Answers

(a) $C_1 (-5, 6) \quad r = 3 \quad C_2 (3, 0) \quad r = 5$

(b) calculate the distance between the centres	• ¹ 10
calculate the sum of the radii	• ² 8
interpret significance of calculations	• ³ $8 < 10 \therefore$ the circles do not intersect