



Maths
Leaving Certificate
Ordinary Level

Past Exam Questions on
The Circle

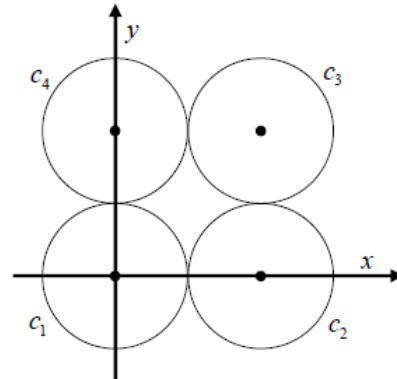
Q4

2012 Project Maths Paper Two Sample Paper Section A

Question 4 Part b

- (b) The diagram shows four circles of equal radius. The circles are touching as shown.

The equation of c_1 is $x^2 + y^2 = 9$.



- (i) Write down the radius of c_1 .

Answer: _____

- (ii) Write down the co-ordinates of the centre of c_3 .

Answer: _____

- (iii) Write down the equation of c_3 .

Answer: _____

Q4 2012 Project Maths Paper Two Ordinary Level Section A

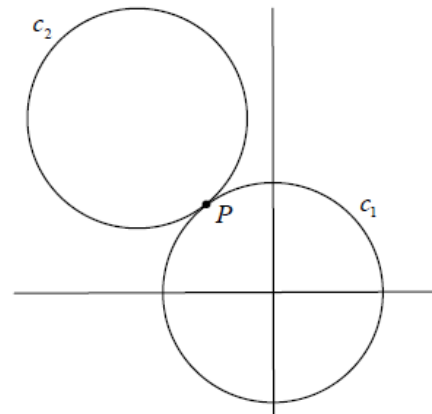
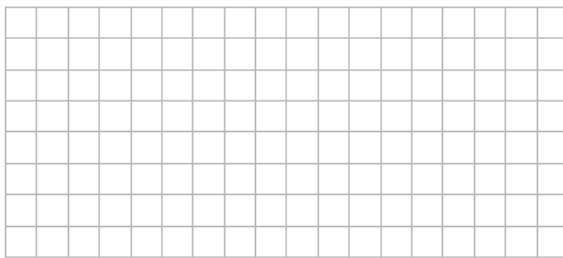
Question 4

(25 marks)

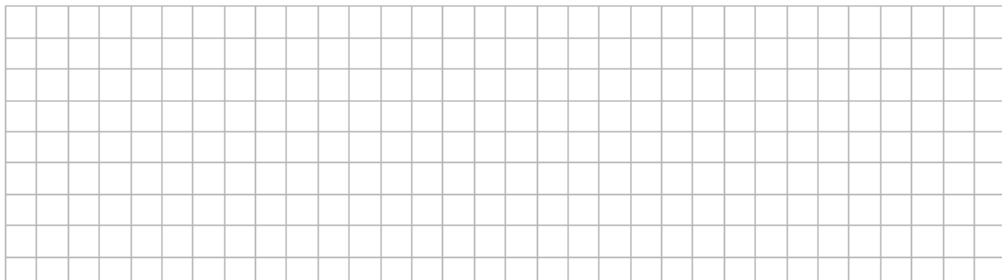
The diagram shows two circles c_1 and c_2 of equal radius.

c_1 has centre $(0, 0)$ and it cuts the x -axis at $(5, 0)$.

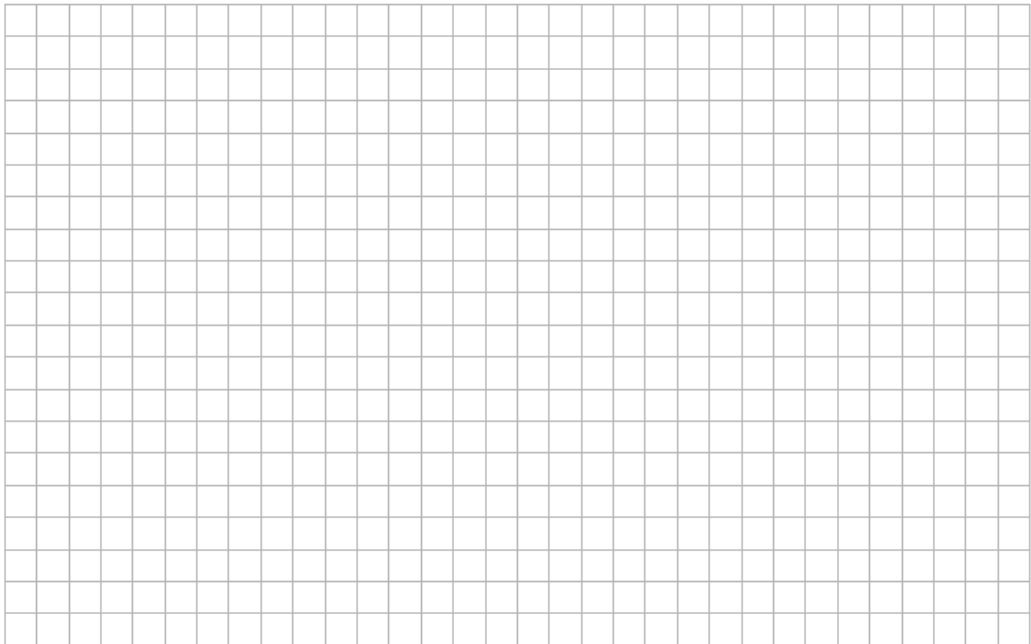
- (a) Find the equation of c_1 .



- (b) Show that the point $P(-3, 4)$ is on c_1 .



- (c) The two circles touch at $P(-3, 4)$.
 P is on the line joining the two centres.
Find the equation of c_2 .



- (d) Find the equation of the common tangent at P .

