

10. The circle C has equation

$$x^2 + y^2 - 8x + 5y - 20 = 0$$

(a) Find

- (i) the coordinates of the centre of C ,
- (ii) the exact radius of C .

(3)

Given that the point P

- lies on C
- lies on the positive x -axis

(b) find an equation of the tangent to C at P , giving your answer in the form $ax + by + c = 0$, where a , b and c are integers.

(5)