AQA – Coordinate geometry – AS Mathematics P2

1. June/2020/Paper_2/No.6

A circle has equation

$$x^2 + y^2 + 10x - 4y - 71 = 0$$

(a) Find the centre of the circle.

[2 marks]

(b) Hence, find the equation of the tangent to the circle at the point (1, 10), giving your answer in the form $ax + by + c = 0$ where a, b and c are integers.

[4 marks]

2. June/2019/Paper_2/No.2

Find the centre of the circle $x^2 + y^2 + 4x - 6y = 12$

Tick (✓) **one** box.

[1 mark]

(−2, −3) ☐

(−2, 3) ☐

(2, −3) ☐

(2, 3) ☐

3. June/2019/Paper_2/No.7

The points A $(a, 3)$ and B $(10, 6)$ lie on a circle.

AB is a diameter of the circle and passes through the point (2, 4)

The circle has equation

$$(x - c)^2 + (y - d)^2 = e$$

where c, d and e are rational numbers.

Find the values of a, c, d and e.

[6 marks]