

**AQA – Coordinate geometry – A2 Mathematics P2**

1. [June/2021/Paper\\_7357/2/No.7](#)

A circle has equation

$$x^2 + y^2 - 6x - 8y = p$$

(a) (i) State the coordinates of the centre of the circle.

[1 mark]

(a) (ii) Find the radius of the circle in terms of  $p$ .

[3 marks]

(b) The circle intersects the coordinate axes at exactly three points.

Find the **two** possible values of  $p$ .

[4 marks]