

Graphs – Q1 [3 marks](24/5/21)

Exam Boards

OCR : AL (Year 1)

MEI: AL (Year 1)

AQA: AL (Year 1)

Edx: AL (Year 1)

Sketch the curve $x^2 = y(1 - y)$ [3 marks]

Sketch the curve $x^2 = y(1 - y)$ [3 marks]

Solution

$$y(1 - y) = -(y^2 - y) = -\left(y - \frac{1}{2}\right)^2 + \frac{1}{4} \text{ [1 mark]}$$

$$\text{So curve is } x^2 + \left(y - \frac{1}{2}\right)^2 = \frac{1}{4} \text{ [1 mark]}$$

ie a circle centre $(0, \frac{1}{2})$ and radius $\frac{1}{2}$ [1 mark]