

AQA – Algebra functions – AS Mathematics P1

1. June/2021/Paper_7356/1/No.3

The graph of the equation $y = \frac{1}{x}$ is translated by the vector $\begin{bmatrix} 3 \\ 0 \end{bmatrix}$

(a) Write down the equation of the transformed graph.

[1 mark]

(b) State the equations of the asymptotes of the transformed graph.

[2 marks]

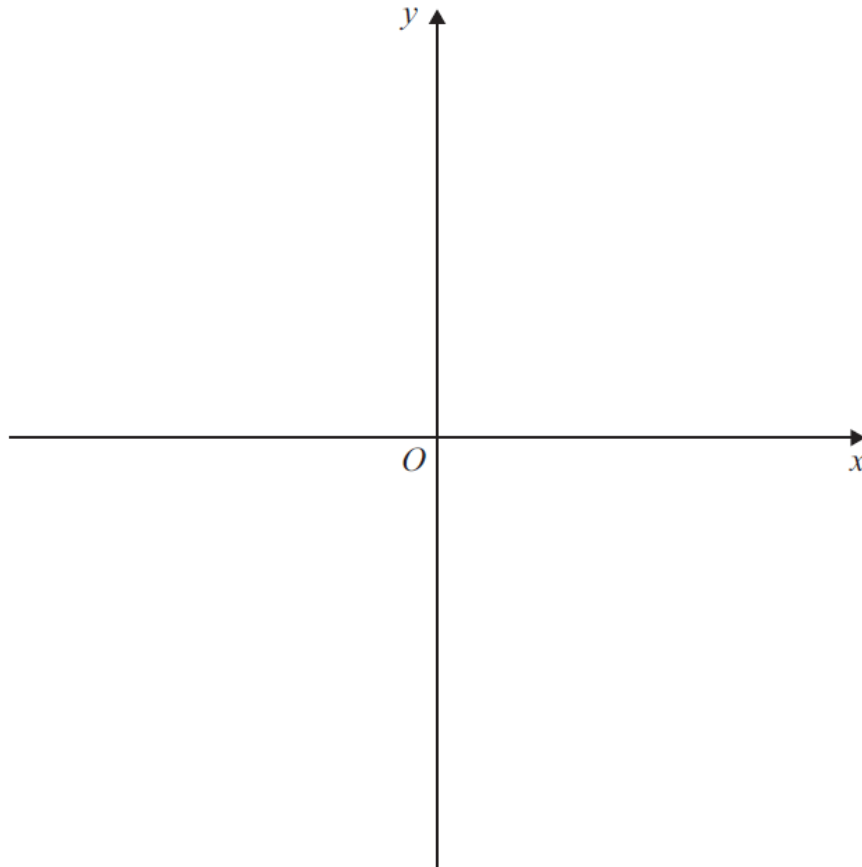
2. June/2021/Paper_7356/1/No.5

(a) Sketch the curve

$$y = (x - a)^2(3 - x) \quad \text{where } 0 < a < 3$$

indicating the coordinates of the points where the curve and the axes meet.

[4 marks]



(b) Hence, solve

$$(x - a)^2(3 - x) > 0$$

giving your answer in set notation form.

[2 marks]