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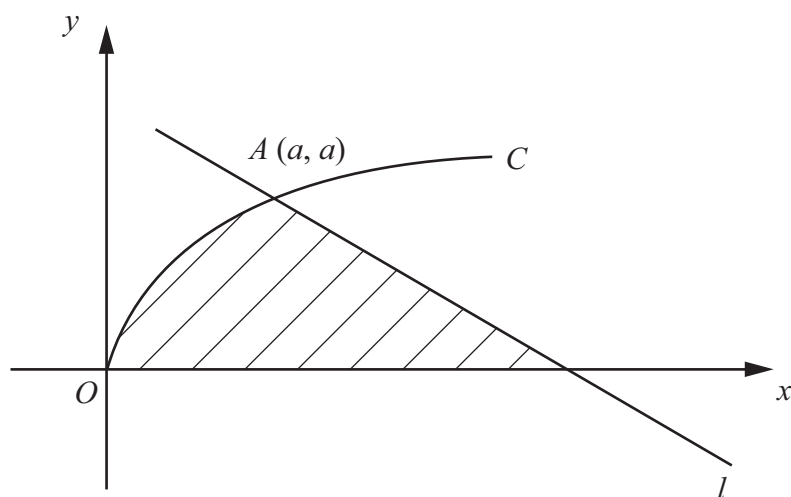


Figure 1

The curve C , with equation $y^2 = 5x$ and the line l intersect at the point A with coordinates (a, a) , $a \neq 0$, as shown in **Figure 1**.

- (a) Find the value of a .

(2)

The line l has gradient $-\frac{5}{7}$ and intersects the x -axis at the point B .

- (b) Find the x -coordinate of B .

(3)

The shaded region is rotated through 360° about the x -axis.

- (c) Find, in terms of π , the volume of the solid generated.

(5)

[illegible]

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Total for Question 5 is 10 marks)

