



The diagram shows the straight line $x + y = 5$ intersecting the curve $y = \frac{4}{x}$ at the points $A(1, 4)$ and $B(4, 1)$. Find, showing all necessary working, the volume obtained when the shaded region is rotated through 360° about the x -axis. [7]

This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

