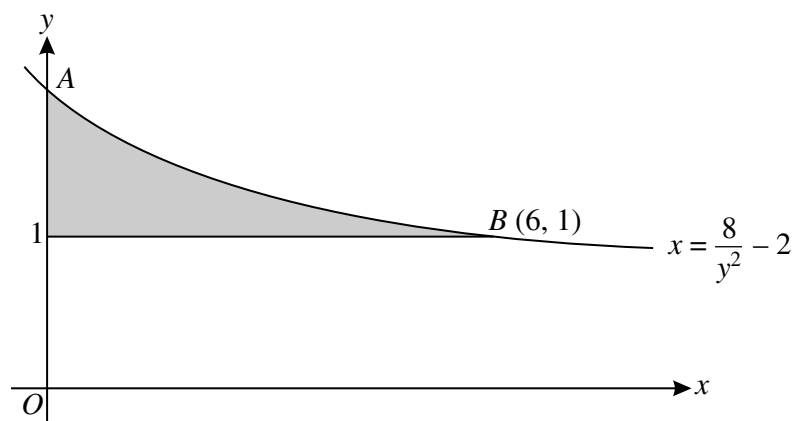


5



The diagram shows part of the curve  $x = \frac{8}{y^2} - 2$ , crossing the y-axis at the point A. The point B (6, 1) lies on the curve. The shaded region is bounded by the curve, the y-axis and the line  $y = 1$ . Find the exact volume obtained when this shaded region is rotated through  $360^\circ$  about the **y-axis**. [6]