

The diagram shows part of the curve $y = (x - 1)^{-2} + 2$, and the lines x = 1 and x = 3. The point A on the curve has coordinates (2, 3). The normal to the curve at A crosses the line x = 1 at B.

)	Show that the normal AB has equation $y = \frac{1}{2}x + 2$.	[3]
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nd, showing all necessary working, the volume of revolution obtained when the shaded rotated through 360° about the x-axis.	
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