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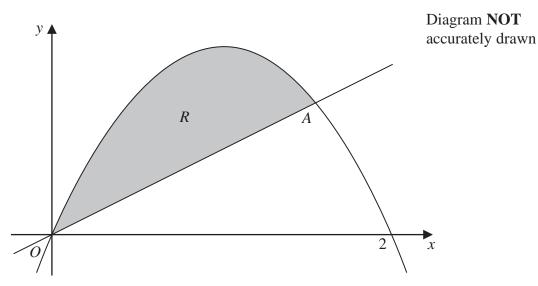


Figure 2

The region R, shown shaded in Figure 2, is bounded by the curve with equation  $y = 2x - x^2$  and the line with equation 2y - x = 0

The curve and the line intersect at the origin O and the point A.

(a) Show that the point A has coordinates  $\left(\frac{3}{2}, \frac{3}{4}\right)$ .

(2)

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

(b) Use algebraic integration to find, in terms of  $\pi$ , the volume of the solid formed.

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Question 6 continued	

