Solve neatly on separate paper.	Solve	neatly	on	se	parate	pa	per.
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Exercises

- Find the volume of the solid of revolution generated when the area described is rotated about the x-axis.
- (a) The area between the curve y = x and the ordinates x = 0 and x = 4.
- (b) The area between the curve $y = x^{3/2}$ and the ordinates x = 1 and x = 3.
- (c) The area between the curve $x^2 + y^2 = 16$ and the ordinates x = -1 and x = 1.
- (d) The area between the curve $x^2 y^2 = 9$ and the ordinates x = -4 and x = -3.
- (e) The area between the curve $y = (2 + x)^2$ and the ordinates x = 0 and x = 1.
- 2. The area between the curve y = 1/x, the y-axis and the lines y = 1 and y = 2 is rotated about the y-axis. Find the volume of the solid of revolution formed.
- 3. The area between the curve $y = x^2$, the y-axis and the lines y = 0 and y = 2 is rotated about the y-axis. Find the volume of the solid of revolution formed.
- 4. The area cut off by the x-axis and the curve $y = x^2 3x$ is rotated about the x-axis. Find the volume of the solid of revolution formed.
- 5. Sketch the curve $y^2 = x(x-4)^2$ and find the volume of the solid of revolution formed when the closed loop of the curve is rotated about the x-axis.
- 6. A conical funnel is formed by rotating the curve $y = \frac{1}{3}x$ about the y-axis. The radius of the rim of the funnel is to 6 cm. Find the depth of the funnel and its volume.