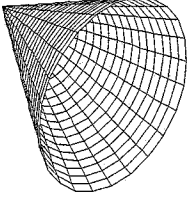
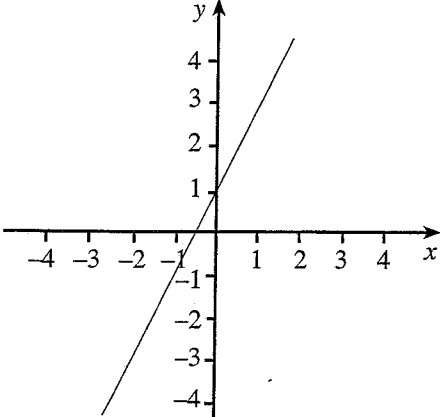
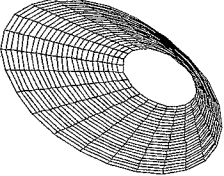
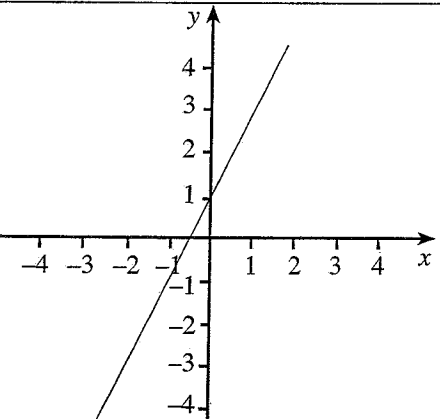
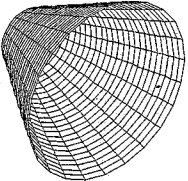
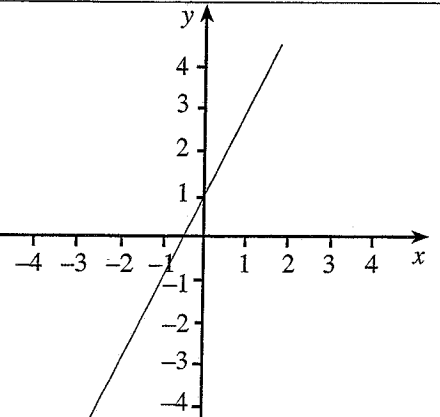
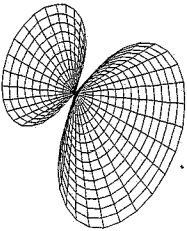
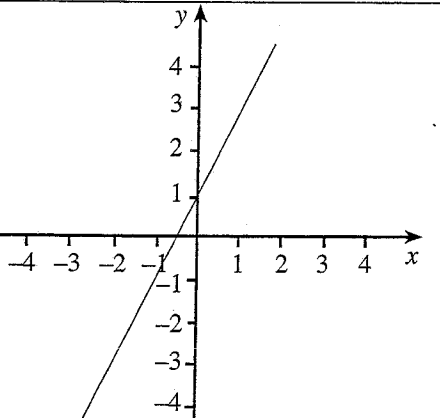
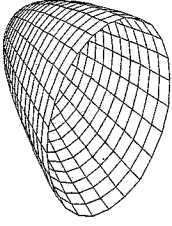
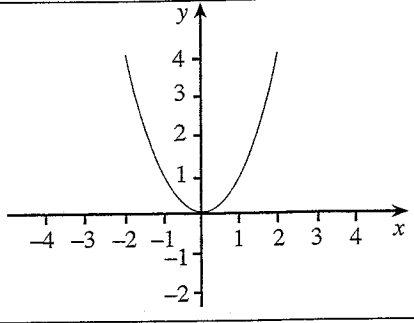
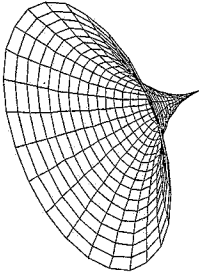
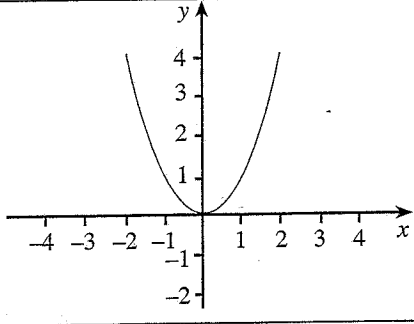
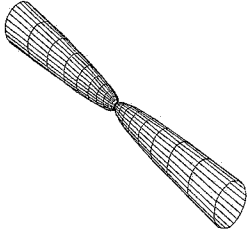
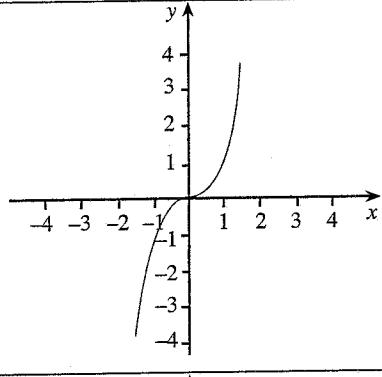
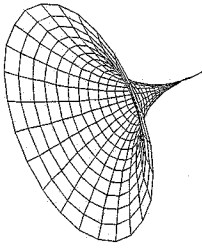
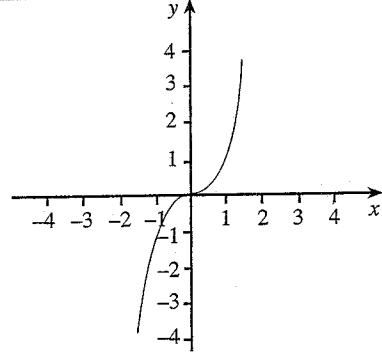
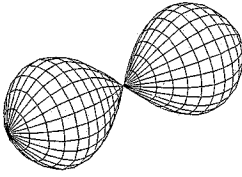
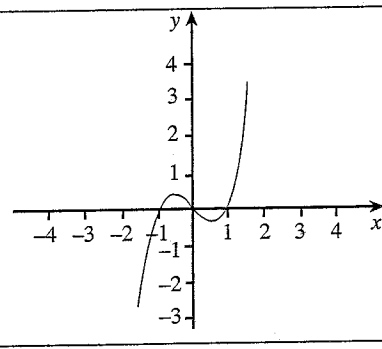


# 1. VOLUMES OF SOLIDS OF REVOLUTION

In each question, the solid has been generated by rotating part of the function graphed on the number plane. Sketch the solid in its correct position on the number plane and complete the third column by writing down the axis of rotation and finding the volume of the solid.

		<p>1. <math>y = 2x + 1</math>            Axis of rotation:            Limits of integration:  <math>y = 1</math> to <math>y = 4</math>  <math>V =</math></p>
		<p>2. <math>y = 2x + 1</math>            Axis of rotation:            Limits of integration:  <math>y = 2</math> to <math>y = 4</math>  <math>V =</math></p>
		<p>3. <math>y = 2x + 1</math>            Axis of rotation:            Limits of integration:  <math>x = 0</math> to <math>x = 2</math>  <math>V =</math></p>
		<p>4. <math>y = 2x + 1</math>            Axis of rotation:            Limits of integration:  <math>y = -1</math> to <math>y = 3</math>  <math>V =</math></p>

		<p>5. <math>y = x^2</math>                      Axis of rotation:                      Limits of integration:  <math>y = 0</math> to <math>y = 4</math>  <math>V =</math></p>
		<p>6. <math>y = x^2</math>                      Axis of rotation:                      Limits of integration:  <math>x = 0</math> to <math>x = 3</math>  <math>V =</math></p>
		<p>7. <math>y = x^3</math>                      Axis of rotation:                      Limits of integration:  <math>y = -4</math> to <math>y = 4</math>  <math>V =</math></p>
		<p>8. <math>y = 0.2x^3</math>                      Axis of rotation:                      Limits of integration:  <math>x = 0</math> to <math>x = 3</math>  <math>V =</math></p>
		<p>9. <math>y = x(x-1)(x+1)</math>                      Axis of rotation:                      Limits of integration:  <math>x = -1</math> to <math>x = 1</math>  <math>V =</math></p>

Answers are in cubic units

$$\frac{9\pi}{4}, \frac{13\pi}{6}, \frac{62\pi}{3}, \frac{4\pi}{3}, 8\pi, \frac{243\pi}{5}, \frac{6\pi}{5} \sqrt[3]{4^5}, \frac{2187\pi}{175}, \frac{16\pi}{105}$$