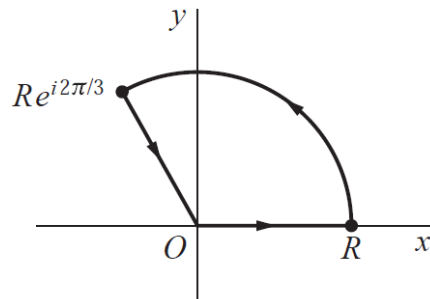


**Exercise 8**

Use a residue and the contour shown in Fig. 95, where  $R > 1$ , to establish the integration formula

$$\int_0^{\infty} \frac{dx}{x^3 + 1} = \frac{2\pi}{3\sqrt{3}}.$$

**FIGURE 95**