

$$\int \frac{dx}{\sqrt{a^2 - x^2}} = \sin^{-1} \frac{x}{a}$$

$$\int \frac{x dx}{\sqrt{a^2 - x^2}} = -\sqrt{a^2 - x^2}$$

$$\int \frac{x^2 dx}{\sqrt{a^2 - x^2}} = -\frac{x\sqrt{a^2 - x^2}}{2} + \frac{a^2}{2} \sin^{-1} \frac{x}{a}$$

$$\int \frac{x^3 dx}{\sqrt{a^2 - x^2}} = \frac{(a^2 - x^2)^{3/2}}{3} - a^2 \sqrt{a^2 - x^2}$$

$$\int \frac{dx}{x\sqrt{a^2 - x^2}} = -\frac{1}{a} \ln \left( \frac{a + \sqrt{a^2 - x^2}}{x} \right)$$

$$\int \frac{dx}{x^2\sqrt{a^2 - x^2}} = -\frac{\sqrt{a^2 - x^2}}{a^2 x}$$

$$\int \frac{dx}{x^3\sqrt{a^2 - x^2}} = -\frac{\sqrt{a^2 - x^2}}{2a^2 x^2} - \frac{1}{2a^3} \ln \left( \frac{a + \sqrt{a^2 - x^2}}{x} \right)$$

$$\int \sqrt{a^2 - x^2} dx = \frac{x\sqrt{a^2 - x^2}}{2} + \frac{a^2}{2} \sin^{-1} \frac{x}{a}$$

$$\int x\sqrt{a^2 - x^2} dx = -\frac{(a^2 - x^2)^{3/2}}{3}$$

$$\int x^2 \sqrt{a^2 - x^2} dx = -\frac{x(a^2 - x^2)^{3/2}}{4} + \frac{a^2 x \sqrt{a^2 - x^2}}{8} + \frac{a^4}{8} \sin^{-1} \left( \frac{x}{a} \right)$$

$$\int x^3 \sqrt{a^2 - x^2} dx = \frac{(a^2 - x^2)^{5/2}}{5} - \frac{a^2 (a^2 - x^2)^{3/2}}{3}$$

$$\int \frac{\sqrt{a^2 - x^2}}{x} dx = \sqrt{a^2 - x^2} - a \ln \left( \frac{a + \sqrt{a^2 - x^2}}{x} \right)$$

$$\int \frac{\sqrt{a^2 - x^2}}{x^2} dx = -\frac{\sqrt{a^2 - x^2}}{x} - \sin^{-1} \frac{x}{a}$$

$$\int \frac{\sqrt{a^2 - x^2}}{x} dx = \sqrt{a^2 - x^2} - a \ln \left( \frac{a + \sqrt{a^2 - x^2}}{x} \right)$$

$$\int \frac{dx}{(a^2 - x^2)^{3/2}} = \frac{x}{a^2 \sqrt{a^2 - x^2}}$$

$$\int \frac{x dx}{(a^2 - x^2)^{3/2}} = \frac{1}{\sqrt{a^2 - x^2}}$$

$$\int \frac{x^2 dx}{(a^2 - x^2)^{3/2}} = \frac{x}{\sqrt{a^2 - x^2}} - \sin^{-1} \frac{x}{a}$$

$$\int \frac{x^3 dx}{(a^2 - x^2)^{3/2}} = \sqrt{a^2 - x^2} + \frac{a^2}{\sqrt{a^2 - x^2}}$$

$$\int \frac{dx}{x(a^2 - x^2)^{3/2}} = \frac{1}{a^2 \sqrt{a^2 - x^2}} - \frac{1}{a^3} \ln \left( \frac{a + \sqrt{a^2 - x^2}}{x} \right)$$

$$\int \frac{dx}{x^2(a^2 - x^2)^{3/2}} = -\frac{\sqrt{a^2 - x^2}}{a^4 x} + \frac{x}{a^4 \sqrt{a^2 - x^2}}$$

$$\int \frac{dx}{x^3(a^2 - x^2)^{3/2}} = \frac{-1}{2a^2 x^2 \sqrt{a^2 - x^2}} + \frac{3}{2a^4 \sqrt{a^2 - x^2}} - \frac{3}{2a^5} \ln \left( \frac{a + \sqrt{a^2 - x^2}}{x} \right)$$

$$\int (a^2 - x^2)^{3/2} dx = \frac{x(a^2 - x^2)^{3/2}}{4} + \frac{3a^2 x \sqrt{a^2 - x^2}}{8} + \frac{3}{8} a^4 \sin^{-1} \frac{x}{a}$$

$$\int x(a^2 - x^2)^{3/2} dx = -\frac{(a^2 - x^2)^{3/2}}{5}$$

$$\int x^3(a^2 - x^2)^{3/2} dx = \frac{(a^2 - x^2)^{7/2}}{7} - \frac{a^2(a^2 - x^2)^{5/2}}{5}$$

$$\int \frac{(a^2 - x^2)^{3/2}}{x} dx = \frac{(a^2 - x^2)^{3/2}}{3} + a^2 \sqrt{a^2 - x^2} - a^3 \ln \left( \frac{a + \sqrt{a^2 - x^2}}{x} \right)$$

$$\int \frac{(a^2 - x^2)^{3/2}}{x^2} dx = -\frac{(a^2 - x^2)^{3/2}}{x} - \frac{3x \sqrt{a^2 - x^2}}{2} - \frac{3}{2} a^2 \sin^{-1} \frac{x}{a}$$

$$\int \frac{(a^2 - x^2)^{3/2}}{x} dx = \frac{(a^2 - x^2)^{3/2}}{3} + a^2 \sqrt{a^2 - x^2} - a^3 \ln \left( \frac{a + \sqrt{a^2 - x^2}}{x} \right)$$