$$\int \frac{1-x^2}{1+x^2}\,\mathrm{d}x \qquad (1.1)$$

$$\int \frac{x}{3-x^2}\,\mathrm{d}x \qquad (1.2)$$

$$\int \frac{2x+1}{x^2+x+1}\,\mathrm{d}x \qquad (1.3)$$

$$\int \frac{x}{x^2+x-6}\,\mathrm{d}x \qquad (1.4)$$

$$\int \frac{x^2}{1+x^6}\,\mathrm{d}x \qquad (1.5)$$

$$\int \frac{x-1}{x^2-4x+8}\,\mathrm{d}x \qquad (1.6)$$

$$\int \frac{1}{(x+1)(x+2)}\,\mathrm{d}x \qquad (1.7)$$

$$\int \frac{1}{x\left(1+x^2\right)}\,\mathrm{d}x \qquad (1.8)$$

$$\int \frac{x^3+1}{x^3-5x^2+6x}\,\mathrm{d}x \qquad (1.9)$$

$$\int \frac{1}{x^4-1}\,\mathrm{d}x \qquad (1.10)$$

$$\int \frac{x^4}{x^4+5x^2+4}\,\mathrm{d}x \quad (1.11)$$

$$\int \frac{1}{1+x^3}\,\mathrm{d}x \quad (1.12)$$

$$\int \frac{x^7}{\left(1-x^2\right)^5}\,\mathrm{d}x \quad (1.13)$$

$$\int \frac{1}{x^4\left(2x^2-1\right)}\,\mathrm{d}x \quad (1.14)$$

$$\int \frac{1}{x\left(x^n+a\right)}\,\mathrm{d}x \quad (1.15)$$

$$\int \left(1-2\cot^2 x\right)\mathrm{d}x \quad (2.1)$$

$$\int \tan x\,\mathrm{d}x \quad (2.2)$$

$$\int \frac{\sec^2 x}{\sqrt{1+\tan x}}\,\mathrm{d}x \quad (2.3)$$

$$\int \cos^2(1-2x)\,\mathrm{d}x \quad (2.4)$$

$$\int \cos^3 x\,\mathrm{d}x \quad (2.5)$$

$$\int \sin \alpha x \cos \beta x \, \mathrm{d}x \tag{2.6}$$

$$\int \tan^4 x \, \mathrm{d}x \tag{2.7}$$

$$\int \sqrt{1 + \cos x} \, \mathrm{d}x \tag{2.8}$$

$$\int \frac{\sin 2x}{1 + \sin^4 x} \, \mathrm{d}x \tag{2.9}$$

$$\int \frac{\sin^4 x}{\cos^3 x} \, \mathrm{d}x \tag{2.10}$$

$$\int \frac{1}{\sin x \cos^4 x} \, \mathrm{d}x \tag{2.11}$$

$$\int \frac{\sin^2 x}{1 + \sin^2 x} \, \mathrm{d}x \tag{2.12}$$

$$\int \frac{1 + \tan x}{\sin 2x} \, \mathrm{d}x \tag{2.13}$$

$$\int \frac{1 - \tan x}{1 + \tan x} \, \mathrm{d}x \tag{2.14}$$

$$\int \frac{1}{(2 + \cos x) \sin x} \, \mathrm{d}x \tag{2.15}$$

$$\int \frac{\sin x}{\sin x + \cos x}\,\mathrm{d}x \quad (2.16)$$

$$\int \frac{1}{5 + 4\sin x}\,\mathrm{d}x \quad (2.17)$$

$$\int \frac{\cos x}{\sin x + \cos x}\,\mathrm{d}x \quad (2.18)$$

$$\int \frac{\sin x \cos^3 x}{1 + \cos^2 x}\,\mathrm{d}x \quad (2.19)$$

$$\int \frac{\sqrt{1 + \cos x}}{\sin x}\,\mathrm{d}x, x \in (0, \pi) \quad (2.20)$$

$$\int \sqrt{1 + \csc x}\,\mathrm{d}x \quad (2.21)$$

$$\int \frac{x^2}{\sqrt{a^2 + x^2}}\,\mathrm{d}x \quad (3.1)$$

$$\int \frac{\sqrt{x^2 - 4}}{x}\,\mathrm{d}x \quad (3.2)$$

$$\int \frac{1}{x\sqrt{a^2 - x^2}}\,\mathrm{d}x \quad (3.3)$$

$$\int \frac{1}{x^2\sqrt{x^2 - 1}}\,\mathrm{d}x \quad (3.4)$$

$$\int \frac{2x-1}{\sqrt{4x^2+4x+5}}\,\mathrm{d}x \tag{3.5}$$

$$\int \frac{x^2}{\sqrt{3+2x-x^2}}\,\mathrm{d}x \tag{3.6}$$

$$\int \frac{1}{\sqrt{x}(\sqrt{x}+\sqrt[3]{x})}\,\mathrm{d}x \tag{3.7}$$

$$\int \frac{\sqrt{x+1}-\sqrt{x-1}}{\sqrt{x+1}+\sqrt{x-1}}\,\mathrm{d}x \tag{3.8}$$

$$\int x\sqrt{x+2}\,\mathrm{d}x \tag{3.9}$$

$$\int x^2\sqrt{1-x^2}\,\mathrm{d}x \tag{3.10}$$

$$\int x\sqrt{x^4+2x^2-1}\,\mathrm{d}x \tag{3.11}$$

$$\int x\sqrt{\frac{1+x}{1-x}}\,\mathrm{d}x \tag{3.12}$$

$$\int \sqrt{\frac{a-x}{x-b}}\,\mathrm{d}x \tag{3.13}$$

$$\int \frac{1-x+x^2}{\sqrt{1+x-x^2}}\,\mathrm{d}x \tag{3.14}$$

$$\int \frac{1}{\sqrt{\left(a^2 - x^2\right)^3}}\,\mathrm{d}x \quad (3.15)$$

$$\int \sqrt{\frac{\arcsin x}{1 - x^2}}\,\mathrm{d}x \quad (4.5)$$

$$\int \frac{1}{\left(1 + x^2\right)\arctan x}\,\mathrm{d}x \quad (4.1)$$

$$\int \frac{2^x}{\sqrt{4 - 4^{x+1}}}\,\mathrm{d}x \quad (4.6)$$

$$\int \frac{1}{x^2}\sinh\frac{1}{x}\,\mathrm{d}x \quad (4.2)$$

$$\int \frac{\mathrm{e}^x}{1 + \mathrm{e}^{2x}}\,\mathrm{d}x \quad (4.7)$$

$$\int x\sec^2\left(1 - x^2\right)\mathrm{d}x \quad (4.3)$$

$$\int \tanh x\,\mathrm{d}x \quad (4.8)$$

$$\int \frac{x}{\sqrt{1 + x^2}}\sin\sqrt{1 + x^2}\,\mathrm{d}x \quad (4.4)$$

$$\int \frac{1}{x\ln x\ln\ln x}\,\mathrm{d}x \quad (4.9)$$

$$\int \frac{\sqrt{1-\ln x}}{x}\,\mathrm{d}x \qquad (4.10)$$

$$\int x\cos 2x\,\mathrm{d}x \qquad (5.1)$$

$$\int x\mathrm{e}^{-3x}\,\mathrm{d}x \qquad (5.2)$$

$$\int x^2\sin^2 x\,\mathrm{d}x \qquad (5.3)$$

$$\int x\arctan x\,\mathrm{d}x \qquad (5.4)$$

$$\int x\ln(x-1)\,\mathrm{d}x \qquad (5.5)$$

$$\int \ln\left(x+\sqrt{1+x^2}\right)\mathrm{d}x \qquad (5.6)$$

$$\int \arccos^2 x\,\mathrm{d}x \qquad (5.7)$$

$$\int x\tan^2 x\,\mathrm{d}x \qquad (5.8)$$

$$\int \frac{x}{\sin^2 x}\,\mathrm{d}x \qquad (5.9)$$

$$\int \mathrm{e}^x \sin^2 x \,\mathrm{d}x \qquad (5.10)$$

$$\int \frac{\arcsin \mathrm{e}^x}{\mathrm{e}^x} \,\mathrm{d}x \qquad (5.11)$$

$$\int \sin(\ln x) \,\mathrm{d}x \qquad (5.12)$$
