$$\int \mathrm{d}x = \int 1\,\mathrm{d}x = x + c, \qquad \text{for } x \in R.$$

$$\int x^a\,\mathrm{d}x = \frac{x^{a+1}}{a+1} + c, \qquad \text{for } a \in R,\ a \neq -1,\ x \in R - \{0\}.$$

$$\int \frac{\mathrm{d}x}{x} = \ln|x| + c, \qquad \text{for } x \in R - \{0\}.$$

$$\int \frac{f'(x)}{f(x)}\,\mathrm{d}x = \ln|f(x)| + c, \qquad \text{for } f(x) \neq 0,\ x \in D(f).$$

$$\int \mathrm{e}^{ax}\,\mathrm{d}x = \frac{\mathrm{e}^{ax}}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R, \qquad \int \mathrm{e}^{x}\,\mathrm{d}x = \mathrm{e}^{x} + c.$$

$$\int a^x\,\mathrm{d}x = \frac{a^x}{\ln a} + c, \qquad \text{for } a > 0,\ a \neq 1,\ x \in R, \qquad \int \mathrm{e}^{x}\,\mathrm{d}x = \frac{\mathrm{e}^{x}}{\ln \mathrm{e}} + c = \mathrm{e}^{x} + c.$$

$$\int \sin ax\,\mathrm{d}x = -\frac{\cos ax}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R, \qquad \int \sin x\,\mathrm{d}x = -\cos x + c.$$

$$\int \cos ax\,\mathrm{d}x = \frac{\sin ax}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R, \qquad \int \cos x\,\mathrm{d}x = \sin x + c.$$

$$\int \frac{\mathrm{d}x}{\cos^2 ax} = \frac{\operatorname{tg} ax}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R - \left\{(2k+1)\frac{\pi}{2}\,;\ k \in Z\right\}, \qquad \int \frac{\mathrm{d}x}{\cos^2 x} = \operatorname{tg} x + c.$$

$$\int \frac{\mathrm{d}x}{\sin^2 ax} = -\frac{\operatorname{cotg} ax}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R - \{k\pi\,;\ k \in Z\}, \qquad \int \frac{\mathrm{d}x}{\sin^2 x} = -\operatorname{cotg} x + c.$$

$$\int \frac{\mathrm{d}x}{\sqrt{a^2 - x^2}} = \arcsin\frac{x}{|a|} + c_1 = -\arccos\frac{x}{|a|} + c_2, \qquad \text{for } a \in R,\ a \neq 0,\ x \in (-|a|\,;\ |a|).$$

$$\int \frac{\mathrm{d}x}{\sqrt{x^2 - a^2}} = \ln\left|x + \sqrt{x^2 - a^2}\right| + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in (-\infty\,;\ -|a|) \cup (|a|\,;\ \infty).$$

$$\int \frac{\mathrm{d}x}{\sqrt{x^2 + a^2}} = \ln\left(x + \sqrt{x^2 + a^2}\right) + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R.$$

$$\int \frac{\mathrm{d}x}{x^2 + a^2} = \frac{1}{a}\operatorname{arctg}\frac{x}{a} + c_1 = -\frac{1}{a}\operatorname{arccotg}\frac{x}{a} + c_2, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R.$$

$$\int \frac{\mathrm{d}x}{x^2 - a^2} = \int \frac{1}{2a}\left[\frac{1}{x-a} - \frac{1}{x+a}\right]\mathrm{d}x = \frac{1}{2a}\ln\left|\frac{x-a}{x+a}\right| + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R - \{\pm a\}.$$

$$\int \sinh ax\,\mathrm{d}x = \frac{\cosh ax}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R, \qquad \int \sinh x\,\mathrm{d}x = \cosh x + c.$$

$$\int \cosh ax\,\mathrm{d}x = \frac{\sinh ax}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R, \qquad \int \cosh x\,\mathrm{d}x = \sinh x + c.$$

$$\int \frac{\mathrm{d}x}{\cosh^2 ax} = \frac{\operatorname{tgh} ax}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R, \qquad \int \frac{\mathrm{d}x}{\cosh^2 x} = \operatorname{tgh} x + c.$$

$$\int \frac{\mathrm{d}x}{\sinh^2 ax} = -\frac{\operatorname{cotgh} ax}{a} + c, \qquad \text{for } a \in R,\ a \neq 0,\ x \in R - \{0\}, \qquad \int \frac{\mathrm{d}x}{\sinh^2 x} = -\operatorname{cotgh} x + c.$$