

$$\boxed{1} \int \frac{x^2}{\sqrt{x^3 + 2}} dx$$

$$\boxed{2} \int_1^\infty \frac{\log x}{x^2} dx$$

$$\boxed{3} \int \operatorname{sech}(x) dx$$

$$\boxed{4} \int x^3 e^{x^2} dx$$

$$\boxed{5} \int_1^2 \frac{1}{x\sqrt{x^2 - 1}} dx$$

$$\boxed{6} \int_1^\infty \frac{dx}{x(x^2 + 1)}$$

$$\boxed{7} \int \cosh^{-1} x dx$$

$$\boxed{8} \int_{-\infty}^\infty e^{-2x^2 - 5x - 3} dx$$

$$\boxed{9} \int \sin \sqrt{x} dx$$

$$\boxed{10} \int_0^\infty \frac{dx}{(x + 1/x)^2}$$

$$\boxed{11} \int \frac{(2+x)e^{-x}}{x^3} dx$$

$$\boxed{12} \int_0^1 \frac{dx}{\sqrt{x(1-x)}}$$

$$\boxed{13} \int_0^\infty \frac{\tanh(x)}{\exp(x)} dx$$

$$\boxed{14} \int_0^{\frac{\pi}{2}} \sqrt{\sin(x)+1} dx$$

$$\boxed{15} \lim_{n \rightarrow \infty} I_n, \text{ where } I_1 = \int_0^1 \frac{dx}{1+\sqrt{x}}, \quad I_2 = \int_0^1 \frac{dx}{1+\frac{1}{1+\sqrt{x}}}, \quad I_3 = \int_0^1 \frac{dx}{1+\frac{1}{1+\frac{1}{1+\sqrt{x}}}}, \quad \dots$$

$$\boxed{16} \int_{-\infty}^\infty \frac{\sin^2(x+\pi/4)}{e^{x^2}} dx$$

$$\boxed{17} \int_{-\infty}^\infty 3x^2(x^3+1)^2 e^{-x^6-2x^3} dx$$

$$\boxed{18} \int_0^{\pi/2} \frac{dx}{1+\tan^{2017} x}$$

$$\boxed{19} \int e^{2x} \cos(3x) dx$$

$$\boxed{20} \int (\cos(x))^{\cos(x)+1} \tan(x)(1+\log(\cos(x))) dx$$