

$$\boxed{1} \int \frac{1 + \cos x}{x + \sin x} dx$$

$$\boxed{2} \int_1^{\sqrt{3}} \frac{\arctan x + \operatorname{arccot} x}{x} dx$$

$$\boxed{3} \int_0^{2022} x^2 - \lfloor x \rfloor \lceil x \rceil dx$$

$$\boxed{4} \int \frac{\sinh(x)}{\cosh(x) - \sinh(x)} dx$$

$$\boxed{5} \int \frac{x}{\sqrt{x-1} + \sqrt{x+1}} dx$$

$$\boxed{6} \int_0^{\pi} \cos(x + \cos x) dx$$

$$\boxed{7} \int x^3 \sin(x^2) dx$$

$$\boxed{8} \int \frac{x}{1-x^4} dx$$

$$\boxed{9} \int \frac{1}{\cosh^2 x} dx$$

$$\boxed{10} \int_0^1 e^{e^x} - e^{e^x-x} dx$$

$$\boxed{11} \quad \lim_{n \rightarrow \infty} \int_0^3 \underbrace{\sin\left(\frac{\pi}{3} \sin\left(\frac{\pi}{3} \sin\left(\dots \sin\left(\frac{\pi}{3}x\right)\dots\right)\right)\right)}_{n \text{ sin's}} dx$$

$$\boxed{12} \quad \int_0^1 \sqrt{1 - \sqrt{x}} dx$$

$$\boxed{13} \quad \int \frac{x^3}{1 + x + \frac{x^2}{2} + \frac{x^3}{6}} dx$$

$$\boxed{14} \quad \int \sin(x + \sin(x)) - \sin(x - \sin(x)) dx$$

$$\boxed{15} \quad \int \tan^4(x) \sec^3(x) + \tan^2(x) \sec^5(x) dx$$

$$\boxed{16} \quad \int (1 + \log x) \log \log x dx$$

$$\boxed{17} \quad \int \frac{1}{1 + \sin x} + \frac{1}{1 + \cos x} + \frac{1}{1 + \tan x} + \frac{1}{1 + \cot x} + \frac{1}{1 + \sec x} + \frac{1}{1 + \csc x} dx$$

$$\boxed{18} \quad \int \frac{1}{\sqrt{x - x^2}} dx$$

$$\boxed{19} \quad \int_0^{\frac{1}{2}} \sum_{n=0}^{\infty} \binom{n+3}{n} x^n dx$$

$$\boxed{20} \quad \int \frac{1}{1 + \cos^2 x} dx$$