

$$\boxed{1} \quad \int \frac{\log(2x)}{x \log x} dx = \log x + (\log 2) \log \log x$$

$$\boxed{2} \quad \int_0^{\infty} \frac{1}{e^x + 1} dx = \log 2$$

$$\boxed{3} \quad \int_e^{e^e} \frac{\log x \cdot \log(\log x)}{x} dx = \frac{1}{4}(1 + e^2)$$

$$\boxed{4} \quad \int_0^1 \log\left(\frac{1+x}{1-x}\right) dx = \log 4$$

$$\boxed{5} \quad \int \frac{1}{x^2 + (x-1)^2} dx = \arctan(2x-1)$$

$$\boxed{6} \quad \int \sqrt{x\sqrt{x\sqrt{x\cdots}}} dx = x^2/2$$

$$\boxed{7} \quad \int \sin^4 x \cos^4 x (\cos x + \sin x)(\cos x - \sin x) dx = \frac{1}{5} \sin^5(x) \cos^5(x)$$

$$\boxed{8} \quad \int \log(x^2 + 1) dx = x \log(x^2 + 1) + 2 \arctan(x) - 2x$$

$$\boxed{9} \quad \int_0^{2\pi} \cos^{2020}(x) dx = 2^{-2019} \pi \binom{2020}{1010}$$

$$\boxed{10} \quad \int \frac{2x+1}{2x^2+2x+1} dx = \frac{1}{2} \ln(2x^2+2x+1)$$

$$\boxed{11} \int_{1/\sqrt{2}}^1 \frac{\arcsin(x)}{x^3} dx = 1/2$$

$$\boxed{12} \int_0^{\pi/2} \sin(2x) \cos(\cos(x)) dx = 2(\cos(1) + \sin(1) - 1)$$

$$\boxed{13} \int_0^{2\pi} \sin(\sin(x) - x) dx = 0$$

$$\boxed{14} \int \frac{1}{x-1} + \frac{\sum_{k=0}^{2018} (k+1)x^k}{\sum_{k=0}^{2019} x^k} dx = \log(1 - x^{2020})$$

$$\boxed{15} \int_0^{\pi/2} \frac{1}{\tan^{\sqrt{2020}}(x) + 1} dx = \pi/4$$

$$\boxed{16} \int x(1-x)^{2020} dx = \frac{(1-x)^{2022}}{2022} - \frac{(1-x)^{2021}}{2021}$$

$$\boxed{17} \int \frac{\sec^4(x) \tan(x)}{\sec^4(x) + 4} dx = \frac{1}{4} \log(\sec^4(x) + 4)$$

$$\boxed{18} \int x^{2x} (2 \log(x) + 2) dx = x^{2x}$$

$$\boxed{19} \int_0^1 \sqrt{1-x^2} dx = \pi/4$$

$$\boxed{20} \int_0^\infty x^5 e^{-x^4} dx = \sqrt{\pi}/8$$