1 $\displaystyle\int_{2023}^{2025} 2024\,dx = \boxed{4048}$

2 $\displaystyle\int \frac{(x-1)^{\log(x+1)}}{(x+1)^{\log(x-1)}}\,dx = \boxed{x}$

3 $\displaystyle\int (x\log x + 2x)\,dx = \boxed{\dfrac{1}{2}x^2 \log x + \dfrac{3}{4}x^2}$

4 $\displaystyle\int \frac{dx}{x\log x + 2x} = \boxed{\log(\log x + 2)}$

5 $\displaystyle\int_0^{2\pi} \arccos(\sin x)\,dx = \boxed{\pi^2}$

6 $\displaystyle\int \frac{\cos x + \cot x + \csc x + 1}{\sin x + \tan x + \sec x + 1}\,dx = \boxed{\log(\sin x)}$

7 $\displaystyle\int \frac{x^{2024} - 1}{x^{506} - 1}\,dx = \boxed{x + \dfrac{x^{507}}{507} + \dfrac{x^{1013}}{1013} + \dfrac{x^{1519}}{1519}}$

8 $\displaystyle\int_{-1}^{1} (5x^3 - 3x)^2\,dx = \boxed{\dfrac{8}{7}}$

9 $\displaystyle\int_0^{2\pi} (\sin x + \cos x)^{11}\,dx = \boxed{0}$

10 $\displaystyle\int_0^{2\pi} (\sinh x + \cosh x)^{11}\,dx = \boxed{\dfrac{e^{22\pi} - 1}{11}}$

11 $\displaystyle\int \csc^2(x)\tan^{2024}(x)\,dx = \boxed{\dfrac{\tan^{2023}(x)}{2023}}$

12 $\displaystyle\int \cos^x(x)(\log(\cos x) - x\tan x)\,dx = \boxed{\cos^x(x)}$

13 $\displaystyle\int_{-\infty}^{\infty} e^{-(x-2024)^2/4}\,dx = \boxed{2\sqrt{\pi}}$

14 $\displaystyle\int_{1/e}^{e} \left(1 - \frac{1}{x^2}\right) e^{e^{x+1/x}}\,dx = \boxed{0}$

15 $\displaystyle\int (x + 1 - e^{-x})e^{xe^x}\,dx = \boxed{e^{(e^x-1)x}}$

16 $\displaystyle\int \left(\frac{\arctan(x)}{1-x^2} + \frac{\operatorname{arctanh}(x)}{1+x^2}\right)dx = \boxed{\arctan(x)\operatorname{arctanh}(x)}$

17 $\displaystyle\int \left(\sum_{k=0}^{\infty} \sin\left(\frac{k\pi}{2}\right)x^k\right)dx = \boxed{\dfrac{\log(x^2+1)}{2}}$

18 $\displaystyle\int_{0}^{1} \left(\sum_{n=0}^{2024} x^{2^n - 1012}\right)dx = \boxed{\dfrac{2025}{2}}$

19 $\displaystyle\int \frac{x^4}{3 - 6x + 6x^2 - 4x^3 + 2x^4}\,dx = \boxed{\dfrac{x}{2} + \dfrac{1}{4}\log(3 - 6x + 6x^2 - 4x^3 + 2x^4)}$

20 $\displaystyle\int_{1}^{3} \frac{x + \frac{x+\cdots}{1+\cdots}}{1 + \frac{x+\cdots}{1+\cdots}}\,dx = \boxed{2\sqrt{3} - \dfrac{2}{3}}$