$\boxed{1}$ $\displaystyle\int \tanh x\, dx = \log(\cosh x)$

$\boxed{2}$ $\displaystyle\int_{-4}^{4} |x^3 - x|\, dx = 113$

$\boxed{3}$ $\displaystyle\int_{1}^{e} \log(\sqrt{x})\, dx = \frac{1}{2}$

$\boxed{4}$ $\displaystyle\int \left(e^{e^x + e^{-x} + x} - e^{e^x + e^{-x} - x} \right) dx = e^{e^x + e^{-x}}$

$\boxed{5}$ $\displaystyle\int \frac{\log(\log(x))}{x \log(x)}\, dx = \frac{1}{2} \log(\log(x))^2$

$\boxed{6}$ $\displaystyle\int_{0}^{\pi/3} \frac{dx}{1 + \tan^2(x)} = \frac{\pi}{6} + \frac{\sqrt{3}}{8}$

$\boxed{7}$ $\displaystyle\int_{-27}^{27} \arcsin\left(\frac{x^{1/3}}{3} \right) dx = 0$

$\boxed{8}$ $\displaystyle\int_{50}^{100} \lfloor \log_2 x \rfloor\, dx = 286$

$\boxed{9}$ $\displaystyle\int \left(e^x \cos x - e^x \sin x \right) dx = e^x \cos x$

$\boxed{10}$ $\displaystyle\int_{0}^{\infty} x^3 e^{-x^2}\, dx = \frac{1}{2}$

11 $\displaystyle \int \left((2e^{x^2}x+1)\cos x - (e^{x^2}+x)\sin x\right) dx = \left(x+e^{x^2}\right)\cos x$

12 $\displaystyle \int (1+x^{1/2}+x^{1/3})(1+x^{-1/2}+x^{-1/3})\, dx = \frac{2}{3}x^{3/2}+\frac{3}{4}x^{4/3}+\frac{6}{7}x^{7/6}+3x+\frac{6}{5}x^{5/6}+\frac{3}{2}x^{2/3}+2x^{1/2}$

13 $\displaystyle \int \sin(\sin(x))\cos(\sin(x))\cos(x)\, dx = \frac{1}{2}\sin^2(\sin(x))$

14 $\displaystyle \int \left(\frac{\cos(x)+\sin(x)}{x^2} + \frac{\sin(x)-\cos(x)}{x}\right) dx = -\frac{\sin x + \cos x}{x}$

15 $\displaystyle \int x^3\sqrt{x^2+1}\, dx = \frac{1}{15}(x^2+1)^{3/2}(3x^2-2)$

16 $\displaystyle \int \frac{x}{x^4+x^2+1}\, dx = \frac{1}{\sqrt{3}}\arctan\left(\frac{2x^2+1}{\sqrt{3}}\right)$

17 $\displaystyle \int e^{e^{2016x}+6048x}\, dx = \frac{1}{2016}(e^{4032x}-2e^{2016x}+2)e^{e^{2016x}}$

18 $\displaystyle \int_{\pi/3}^{\pi/2} \frac{1-\cos x}{\sin x}\, dx = \log(3/2)$

19 $\displaystyle \int \frac{dx}{1-x+x^2-x^3} = \frac{1}{2}\left(\arctan(x)-\log(1-x)+\log\sqrt{1+x^2}\right)$

20 $\displaystyle \int_0^\infty \frac{dx}{2+\cosh x} = \frac{\log(2+\sqrt{3})}{\sqrt{3}}$