Preliminary Rounds

Round 1

1. $\displaystyle\int \frac{x^3(x^4+1)}{x^8+1}\,\mathrm{d}x$
2. $\displaystyle\int_2^3 \binom{x}{2}\,\mathrm{d}x$
3. $\displaystyle\int_0^{\frac{\pi}{2}} \frac{\sin x}{6+7\cos x}\,\mathrm{d}x$
4. $\displaystyle\int \left(\frac{x^7}{1+x^{10}}\right)^2\,\mathrm{d}x$
5. $\displaystyle\int_{-1}^1 \ln\left(\sqrt{x^2+1}+x\right)\,\mathrm{d}x$
6. $\displaystyle\int_0^{\pi} \frac{x}{4\cos^2 x+1}\,\mathrm{d}x$
7. $\displaystyle\int_{-1}^1 \frac{1+\sqrt{1-x^2}}{1+e^{x+\sin^{-1}x}}\,\mathrm{d}x$
8. $\displaystyle\int_0^{2026\pi} \sqrt{1+\sin x}\,\mathrm{d}x$
9. $\displaystyle\int (x\ln x+1)\left(\frac{x}{e}\right)^x\,\mathrm{d}x$
10. $\displaystyle\int_0^{\infty} \frac{\tan^{-1}(4^{\ln x})}{1+x^2}\,\mathrm{d}x$
11. $\displaystyle\int \frac{\cos^{2025}x}{(1+\sin x)^{2026}}\,\mathrm{d}x$
12. $\displaystyle\int_0^{\frac{\pi}{2}} e^{2\ln(\sec x)-\sec^2 x}\,\mathrm{d}x$
13. $\displaystyle\int_{\frac{1}{\sqrt{e}}}^1 \frac{\sin^{-1}\sqrt{\ln(ex)}+\sin^{-1}\sqrt{-\ln x}}{x(\ln x-1)}\,\mathrm{d}x$
14. $\displaystyle\int_0^1 \ln(x)\sin(\ln(x))\,\mathrm{d}x$
15. $\displaystyle\int \sqrt{\frac{e^x\sin x}{1-\cot x}}\,\mathrm{d}x$

Round 2

1. $\displaystyle\int_0^1 \ln(x-x^2)\,\mathrm{d}x$
2. $\displaystyle\int \frac{1}{\sqrt{16-\frac{60}{x^2}-x^2}}\,\mathrm{d}x$
3. $\displaystyle\int_2^{\infty} \frac{1}{\lfloor x\rfloor\lceil x\rceil}\,\mathrm{d}x$
4. $\displaystyle\int \frac{x^5-x}{x^8+4x^4+1}\,\mathrm{d}x$
5. $\displaystyle\int_0^{\frac{\pi}{4}} \frac{\tan x}{\sqrt{\sec x-1}}\,\mathrm{d}x$
6. $\displaystyle\lim_{n\to\infty}\int_0^{\infty} \tan^{-1}\left(\frac{1}{x^n}\right)\,\mathrm{d}x$
7. $\displaystyle\int_0^{\frac{\pi}{2}} \sqrt{\frac{\cos^3 x-\cos x}{\cos^3 x-1}}\,\mathrm{d}x$
8. $\displaystyle\int_0^1 \frac{6^x}{4^x+9^x}\,\mathrm{d}x$
9. $\displaystyle\int \left(\frac{2x+1}{4x^2e^x+e^x}\right)^2\,\mathrm{d}x$
10. $\displaystyle\int \left(\ln(\ln x)+\frac{1}{\ln^2 x}\right)\,\mathrm{d}x$
11. $\displaystyle\int \sqrt{\frac{\sec x(4-3\sec^2(\frac{x}{3}))}{\sqrt{\frac{\sec x(4-3\sec^2(\frac{x}{3}))}{\sqrt{\frac{\sec x(4-3\sec^2(\frac{x}{3}))}{\ddots}}}}}}\,\mathrm{d}x$
12. $\displaystyle\int_0^{\infty} \left(\frac{2x+1}{x^2-x+1}-\frac{2x-1}{x^2+x+1}\right)\,\mathrm{d}x$
13. $\displaystyle\int_0^{\infty} \frac{e^{x+\frac{1}{x}}}{e^{2x}+e^{\frac{2}{x}}}\,\mathrm{d}x$
14. $\displaystyle\int \sqrt{x^2+2x\sqrt{x^2+3x\sqrt{x^2+4x\ldots}}}\,\mathrm{d}x$
15. $\displaystyle\int_{\frac{\pi}{6}}^{\frac{\pi}{3}} e^{\cot x}(1-\sin 2x)\,\mathrm{d}x$

Final Rounds

Semi-Final 1

1. $\displaystyle\int \frac{\sqrt{\sqrt{x^4+1}-x^2}}{x^4+1}\,\mathrm{d}x$
2. $\displaystyle\int_{-\infty}^{\infty} \frac{\tan^{-1} x}{x^2-x+1}\,\mathrm{d}x$
3. $\displaystyle\int_{\ln(0.5)-0.5}^{-1} e^{x+e^{x+e^{x+\cdots}}}\,\mathrm{d}x$

Semi-Final 2

1. $\displaystyle\int \frac{2x\sec x - 2\sec x + 2}{2x\sec x - \tan x + 1}\,\mathrm{d}x$
2. $\displaystyle\int_{0}^{\infty} \frac{\ln(e^x-1)}{e^x+1}\,\mathrm{d}x$
3. $\displaystyle\int_{1}^{\sqrt{2}} e^{x(x+\sqrt{x^2-1})}\,\mathrm{d}x$

Finals

1. $\displaystyle\int_1^{2026} \left(\frac{2026}{\sqrt{2026x^3-x^4}} - \frac{1}{\displaystyle\int_1^{2026} \left(\frac{2026}{\sqrt{2026x^3-x^4}} - \frac{1}{\displaystyle\int_1^{2026} \left(\frac{2026}{\sqrt{2026x^3-x^4}} - \frac{1}{\cdots} \right) \mathrm{d}x} \right) \mathrm{d}x} \right) \mathrm{d}x$
2. $\displaystyle\int_0^{\pi} \left(\frac{1}{2!} - \frac{x^2}{4!} + \frac{x^4}{6!} - \cdots \right)^{-1} \mathrm{d}x$
3. $\displaystyle\int_0^{1} \frac{\sin^{-1}(x) + 2\tan^{-1}\frac{2x}{1+x^2}}{1+x^2}\,\mathrm{d}x$
4. $\displaystyle\int \left(\frac{x}{e^x}\right)^{10} (25x^2-33)\,\mathrm{d}x$
5. $\displaystyle\int_0^{\infty} \frac{2026x^{2028} - 2027x^{2027} + x}{e^x(x-1)^2}\,\mathrm{d}x$