

Integration Bee 2026 practice sessions and sample problems

Below is a practice set for the Integration Bee 2026. Any resemblance to the actual problems is purely coincidental and cannot be used against the organizers or any other party involved.

Like it was the last year, there will be two **live practice sessions** run by Professor Chebotar on **March 23** and **March 25** in **MSB 109** starting at **5:05 PM**.

Round 1 (2 min/problem)

$$\int_0^2 (x-1)^4 dx$$

$$\int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx$$

$$\int_0^\pi [2 \sin x] dx$$

($[y]$ denotes the largest integer not exceeding y , i.e., $[2] = 2$, $[-1.3] = -2$, $[3.1] = 3$, and so on)

$$\int_0^2 x^2 \sqrt{x^3 + 1} dx$$

$$\int_{-3}^3 x^3 e^{x^6} dx$$

Round 2 (4 min/problem)

$$\int \ln x dx$$

$$\int x^3 \sqrt{x^2 + 1} dx$$

$$\int \frac{dx}{\sqrt{(1-x^2)^3}}$$

Round 3 (5 min/problem)

$$\int_0^{2\pi} \sin(\cos^3 2026x) dx$$

$$\int_0^1 (2x^3 - 3x^2 + x)e^{(x^2-x)^5} dx$$