

$$01. \int_0^{2024} 2024 \, dx = 2024^2.$$

$$02. \int_0^{2024} \underbrace{x + x + x + \dots + x}_{2024 \text{ vezes}} \, dx = \frac{2024^3}{2}.$$

$$03. \int (2024x^{2023} - 2023) \cdot \cos(x^{2024} - 2023x) \, dx = \text{sen}(x^{2024} - 2023x) + C.$$

$$04. \int 2024 \ln x \, dx = 2024x(\ln x - 1) + C.$$

$$05. \int (x^2 e^x + 2024) \, dx = e^x(x^2 - 2x + 2) + 2024x + C.$$

$$06. \int (-x + 2x - 3x + 4x - 5x + \dots - 2023x + 2024x) \, dx = 506x^2 + C.$$

$$07. \int_0^{4048} \left[(x - 2024)^{2021} + (x - 2024)^{2022} + (x - 2024)^{2023} \right] \, dx = \frac{2 \cdot 2024^{2023}}{2023}.$$

$$08. \int \frac{\text{sen}^2(\ln x)}{2024x} \, dx = \frac{1}{2024} \left(\frac{\ln x}{2} - \frac{\text{sen}(2 \ln x)}{4} \right) + C.$$

$$09. \int \frac{x - 2021}{(x - 2022)(x - 2023)(x - 2024)} \, dx = \frac{1}{2} \ln|x - 2022| - 2 \ln|x - 2023| + \frac{3}{2} \ln|x - 2024| + C.$$

$$10. \int_1^2 \left(\sum_{i=1}^{2024} \frac{1}{(x+i-1)(x+i)} \right) \, dx = \ln 2 + \ln 2025 - \ln 2026.$$

