

Nombre completo:

Resuelve las siguientes integrales, revisa en el ejemplo la estructura para tus respuestas, simplifica los resultados

$$\begin{aligned}\int (2x - 1)^3 dx &= \int (8x^3 - 12x^2 + 6x - 1) dx \\ &= 8 \int x^3 dx - 12 \int x^2 dx + 6 \int x dx - \int dx \\ &= \frac{8x^4}{4} - \frac{12x^3}{3} + \frac{6x^2}{2} - x + cte = 2x^4 - 4x^3 + 3x^2 - x + cte\end{aligned}$$

$$\begin{aligned}\int (2x^3 - 5x^2 + 8x - 20) dx &= \boxed{} \int \boxed{}^{\boxed{}} \boxed{}^{\boxed{}} - \boxed{} \int \boxed{}^{\boxed{}} \boxed{}^{\boxed{}} + \boxed{} \int \boxed{}^{\boxed{}} - \boxed{} \int \boxed{}^{\boxed{}} \\ &= \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} + \frac{\boxed{}}{\boxed{}} - \boxed{} + \boxed{} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} + \boxed{} - \boxed{} + \boxed{}\end{aligned}$$

$$\begin{aligned}\int \left(\frac{1}{x} - \frac{1}{x^2} + \frac{5}{x} - \frac{8}{x^4} \right) dx &= \int \frac{\boxed{}}{\boxed{}} \boxed{} - \int \frac{\boxed{}}{\boxed{}} \boxed{} + \int \frac{\boxed{}}{\boxed{}} \boxed{} - \int \frac{\boxed{}}{\boxed{}} \boxed{} \\ &= \int \frac{\boxed{}}{\boxed{}} \boxed{} - \int \frac{\boxed{}}{\boxed{}} \boxed{} + \int \frac{\boxed{}}{\boxed{}} \boxed{} - \int \frac{\boxed{}}{\boxed{}} \boxed{} \\ &= \boxed{} \boxed{} - \frac{\boxed{}}{\boxed{}} + \boxed{} \boxed{} - \frac{\boxed{}}{\boxed{}} + \boxed{} \\ &= \boxed{} \boxed{} + \frac{\boxed{}}{\boxed{}} + \boxed{} \boxed{} + \frac{\boxed{}}{\boxed{}} + \boxed{}\end{aligned}$$

$$\begin{aligned}\int \left(4x^3 - \frac{1}{x} + 3 \cos x - e^x + 1 \right) dx &= \boxed{} \int \boxed{}^{\boxed{}} \boxed{}^{\boxed{}} - \int \frac{\boxed{}}{\boxed{}} \boxed{} + \boxed{} \int \boxed{} - \int \boxed{}^{\boxed{}} \boxed{} + \int \boxed{} \\ &= \frac{\boxed{}}{\boxed{}} - \boxed{} \boxed{} + \boxed{} - \boxed{}^{\boxed{}} + x + \boxed{} \\ &= \boxed{} - \boxed{} \boxed{} + \boxed{} - \boxed{}^{\boxed{}} + x + \boxed{}\end{aligned}$$

$$\int \frac{x^3 + 27}{x + 3} dx = \int \frac{(\quad)(\square - \square + \square)}{\square} \square = \int (\square - \square + \square) \square$$

$$= \int \square \square - \square \int \square + \square \int \square = \frac{\square \square}{\square} - \frac{\square \square}{\square} + \square + \square$$

$$\int \frac{x^2 - 8x + 15}{x - 3} dx = \int \left(\frac{(\square)(\square)}{\square} \right) \square = \int (\square) \square = \int \square - \square \int \square$$

$$= \frac{\square \square}{\square} - \square + \square$$

$$\int (4x + 1)^2 dx = \int (\square \square + \square + \square) \square = \square \int \square \square + \square \int \square + \int \square$$

$$= \frac{\square \square}{\square} + \frac{\square \square}{\square} + \square + \square = \frac{\square \square}{\square} + \square \square + \square + \square$$