

Nombre:

Resuelve las siguientes integrales por cambio de variable.

1. sustituye u, du simplifica integra simplifica sustituye

$$\int (3x + 5)^7 dx = \int \boxed{}^{\boxed{}} \frac{\boxed{}}{\boxed{}} = \boxed{} \int \boxed{}^{\boxed{}} \boxed{} = \boxed{} \cdot \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} \rightarrow \frac{(\boxed{})^{\boxed{}}}{\boxed{}}$$

$u = \boxed{}$

$du = \boxed{}$

$dx = \frac{\boxed{}}{\boxed{}}$

$$\int (3x + 5)^7 dx = \frac{(\boxed{})^{\boxed{}}}{\boxed{}} + \boxed{}$$

2. cambia el exponente sustituye u, du

$$\int \sin^2 3x \cos 3x dx = \int (\boxed{})^{\boxed{}} \boxed{} = \int \boxed{}^{\boxed{}} \frac{\boxed{}}{\boxed{}}$$

$$= \frac{\boxed{}}{\boxed{}} \int \boxed{}^{\boxed{}} \boxed{} = \frac{\boxed{}}{\boxed{}} \cdot \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} \rightarrow \frac{(\boxed{})^{\boxed{}}}{\boxed{}}$$

simplifica integra simplifica sustituye

$u = \boxed{}$

$du = \boxed{}$

$dx = \frac{\boxed{}}{\boxed{}}$

Utiliza para la función seno del ángulo la sílaba: sin

$$\int \sin^2 3x \cos 3x dx = \frac{(\boxed{})^{\boxed{}}}{\boxed{}} + \boxed{}$$

3. cambia la raíz sustituye u, du simplifica integra

$$\int x^2 \sqrt[4]{(x^3 + 1)^3} dx = \int \boxed{}^{\boxed{}} (\boxed{} + \boxed{})^{\frac{\boxed{}}{\boxed{}}} \boxed{} = \int \boxed{}^{\boxed{}} (\boxed{})^{\frac{\boxed{}}{\boxed{}}} \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} \int \boxed{}^{\boxed{}} \boxed{} = \frac{\boxed{}}{\boxed{}} \cdot \frac{\boxed{}}{\boxed{}}$$

$$= \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} = \frac{\boxed{} \sqrt[\boxed{}]{\boxed{}}}{\boxed{}} \rightarrow \frac{\boxed{} \sqrt[\boxed{}]{(\boxed{} + \boxed{})^{\boxed{}}}}{\boxed{}}$$

multiplica simplifica cambia a raíz sustituye

$u = \boxed{} + \boxed{}$

$du = \boxed{} \boxed{}$

$dx = \frac{\boxed{}}{\boxed{}}$

$$\int x^2 \sqrt[4]{(x^3 + 1)^3} dx = \frac{\boxed{} \sqrt[\boxed{}]{(\boxed{} + \boxed{})^{\boxed{}}}}{\boxed{}} + \boxed{}$$