

EJERCICIO M2B53382:

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

$$\begin{array}{r} x^3 \\ -x^3 \quad -x \\ \hline -x \end{array} \quad \begin{array}{r} x^2+1 \\ x \end{array}$$

$$= \int \left(x + \frac{-x}{x^2+1} \right) dx =$$

$$= \int x dx - \frac{1}{2} \int \frac{2x}{x^2+1} dx =$$

$$= \boxed{\frac{x^2}{2} - \frac{1}{2} \ln |x^2+1| + C}$$