

QUESTION

Find $\int \frac{x^2}{x^2+1} dx$.

ANSWER

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