8.2.8. $\int \frac{x^2 dx}{x^3+1} = \left[t = x^3 + 1 \to dt = (x^3 + 1)'dx = 3x^2 dx \to x^2 dx = \frac{1}{3} dt\right] = \int \frac{1}{t} * \frac{1}{3} dt = \frac{1}{3} \int \frac{dt}{t} = \frac{1}{3} \ln|t| + C = \frac{1}{3} \ln|x^3 + 1| + C$

8.2.9. $\int \frac{\text{arctg}\, x dx}{x^2+1} = \left[t = \text{arctg}\, x \to dt = (\text{arctg}\, x)'dx = \frac{dx}{x^2+1}\right] = \int t dt = \frac{t^2}{2} + C = \frac{\text{arctg}^2 x}{2} + C$