Worksheet: Logarithms calculus practice (§2.7)

A. (like #307) Compute the derivative of $y = \log_7(\tan x)$.

B. (#312) $\displaystyle\int_0^2 \frac{x\,dx}{x^2+1} =$

C. (#313) $\displaystyle\int_0^2 \frac{x^3\,dx}{x^2+1} =$

D. (like #314) $\displaystyle\int_2^e \frac{dx}{x(\ln x)^2} =$

E. (#317) $\displaystyle\int_0^{\pi/4} \tan x\,dx =$

F. (like #322) Compute the derivative of $y = x^{\sin x}$. (*Hint. Find the derivative of* $\ln y$.)