

FORMULA 3.353.5

$$\int_0^{\infty} \frac{x^n e^{-\mu x} dx}{x+b} = (-1)^{n-1} b^n e^{b\mu} \text{Ei}(-b\mu) + \sum_{k=1}^n (k-1)! (-b)^{n-k} \mu^{-k}$$