

FORMULA 3.541.2

$$\int_0^{\infty} e^{-\mu x} \frac{\sinh \beta x}{\sinh bx} dx = \frac{1}{2b} \left[\psi \left(\frac{1}{2} + \frac{\mu + \beta}{2b} \right) - \psi \left(\frac{1}{2} + \frac{\mu - \beta}{2b} \right) \right]$$