

**FORMULA 4.252.2**

$$\int_0^{\infty} \frac{x^{\mu-1} \ln x}{(x+b)(x-1)} dx = \frac{\pi}{(1+b)(\sin \pi \mu)^2} [\pi - b^{\mu-1}(\sin \pi \mu \ln b - \pi \cos \pi \mu)]$$