

**FORMULA 4.267.**

$$\int_0^1 \frac{x^{p-1} - x^{-p}}{(1+x) \ln x} dx = \frac{1}{2} \int_0^\infty \frac{x^{p-1} - x^{-p}}{(1+x) \ln x} dx = \ln \left( \tan \frac{\pi p}{2} \right)$$