

FORMULA 4.267.23

$$\int_0^{\infty} \frac{x^{p-1} - x^{q-1}}{1 - x^{2n}} \frac{1 - x^2}{\ln x} dx = \ln \left[ \frac{\sin(\frac{\pi p}{2n}) \sin(\frac{\pi(q+2)}{2n})}{\sin(\frac{\pi q}{2n}) \sin(\frac{\pi(p+2)}{2n})} \right]$$