

FORMULA 4.256

$$\int_0^1 \ln\left(\frac{1}{x}\right) \frac{x^{\mu-1} dx}{\sqrt[n]{(1-x^n)^{n-m}}} = \frac{1}{n^2} B\left(\frac{\mu}{n}, \frac{m}{n}\right) \left[\psi\left(\frac{\mu+m}{n}\right) - \psi\left(\frac{\mu}{n}\right) \right]$$