

FORMULA 4.272.17

$$\int_0^1 \left(\ln \frac{1}{x} \right)^{p-1} \frac{x^{q-1} dx}{1 - ax^q} = \frac{\Gamma(p)}{aq^p} \sum_{k=1}^{\infty} \frac{a^k}{k^p}$$