

FORMULA 4.267.16

$$\int_0^1 \frac{x^{p-1} - x^{q-1}}{(1+x^r) \ln x} dx = \ln \left[ \frac{\Gamma\left(\frac{p+r}{2r}\right) \Gamma\left(\frac{q}{2r}\right)}{\Gamma\left(\frac{q+r}{2r}\right) \Gamma\left(\frac{p}{2r}\right)} \right]$$