

FORMULA 3.195

$$\int_0^{\infty} \frac{(1+x)^{p-1}}{(a+x)^{p+1}} dx = \begin{cases} \frac{1-a^{-p}}{p(a-1)} & \text{if } p \neq 0, a > 0, a \neq 1 \\ \frac{\ln a}{a-1} & \text{if } p = 0, a > 0, a \neq 1 \\ 1 & \text{if } a = 1 \end{cases}$$