

FORMULA 3.195

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