

FORMULA 3.223.3

$$\int_0^\infty \frac{(x+b)x^{p-1}dx}{(x+a)(x+c)} = \frac{\pi}{\sin \pi p} \left(\frac{a-b}{a-c} a^{p-1} + \frac{c-b}{c-a} c^{p-1} \right)$$