

NEW FORMULA 3.196.1

The original formula is

$$\int_0^u (x + \beta)^\nu (u - x)^{\mu-1} dx = \frac{\beta^\nu u^\mu}{\mu} {}_2F_1 [1, -\nu, 1 + \mu; -u/\beta]$$

it looks better written as

$$\int_0^u (x + b)^a (u - x)^{c-1} dx = \frac{b^a u^c}{c} {}_2F_1 [1, -a, 1 + c; -u/b]$$