

### NEW FORMULA 3.194.1

The original formula is

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

It looks better if written as

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