

NEW FORMULA 3.194.5

The original formula is

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

and it should be written as

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