

NEW FORMULA 3.194.7

The original formula is

$$\int_0^\infty \frac{x^m dx}{(a+bx)^{n+1/2}} = 2^{m+1} m! \frac{(2n-2m-3)!!}{(2n-1)!!} \frac{a^{m-n+1/2}}{b^{m+1}}$$

and it should be kept as it is. Perhaps the scaling $t = bx/a$ should be employed to replace this formula with

$$\int_0^\infty \frac{x^m dx}{(1+x)^{n+1/2}} = 2^{m+1} m! \frac{(2n-2m-3)!!}{(2n-1)!!}$$