

C4282

! For an efficient use of these tables, first read [HowTo.pdf](#).

C4282

T3.01E. Powers of x and binomials of the form $(a + bx)$ on the interval $(-\infty, a)$ (a, ∞) and $(-\infty, 1)$.

$$1. \int_{-\infty}^a \frac{(a-x)^{p-1}}{x-b} dx = -\pi(b-a)^{p-1} \csc p\pi, \quad a < b, \quad 0 < p < 1.$$

C4282

$$2. \int_a^{\infty} \frac{(x-a)^{p-1}}{x-b} dx = \pi(a-b)^{p-1} \csc p\pi, \quad a > b, \quad 0 < p < 1.$$

$$3. \int_{-\infty}^1 \frac{dx}{(a-bx)(1-x)^\nu} = \frac{\pi}{b} \csc \nu\pi \left(\frac{b}{a-b} \right)^\nu, \quad a > b > 0, \quad 0 < \nu < 1.$$

C4282

C4282

C4282

C4282

C4282

C4282