**Source** This example is from (2.9.16) of [KS04]:

$$H_{p,q+1}^{1,p}\left(\cdot \left| \begin{array}{l} (1-a_i,1)_{1,p} \\ \\ (0,1)\,,(1-b_j,1)_{1,q} \end{array}\right.\right) = \frac{\prod_{i=1}^{p}\Gamma(a_i)}{\prod_{j=1}^{q}\Gamma(b_j)}\,{}_pF_q(a_1,\cdots,a_p;b_1,\cdots,b_q;-z)$$

**Notes:** ${}_pF_q$ is the generalized hypergeometric series (see [Erd+81] chapter 4).

$${}_pF_q(a_1,\ldots,a_p;b_1,\ldots,b_q;z)=\sum_{n=0}^{\infty}\frac{(a_1)_n\cdots(a_p)_n}{(b_1)_n\cdots(b_q)_n}\frac{z^n}{n!},$$

where $(a)_n$denotes the Pochhammer symbol, which represents the rising factorial $\frac{\Gamma(a+n-1)}{\Gamma(a)}=a(a+1)(a+2)(a+n{-}1)a(a+1)(a+2)(a+n{-}1)$ for $n>0$, and $(a)_0=1$.

# References


[Erd+81] Arthur Erdélyi, Wilhelm Magnus, Fritz Oberhettinger, and Francesco G. Tricomi. *Higher transcendental functions. Vol. I.* Based on notes left by Harry Bateman, Reprint of the 1953 original. Robert E. Krieger Publishing Co., Inc., Melbourne, Fla., 1981, pp. xviii+396. ISBN: 0-89874-069-X.

[KS04] Anatoly A. Kilbas and Megumi Saigo. *H-transforms*. Vol. 9. Analytical Methods and Special Functions. Theory and applications. Chapman & Hall/CRC, Boca Raton, FL, 2004, pp. xii+389. ISBN: 0-415-29916-0. DOI: `10.1201/9780203487372`. URL: `https://doi.org/10.1201/9780203487372`.