Source This example is from (2.9.14) of [KS04]:

$$H_{1,2}^{1,1}\left(\cdot \;\middle|\; \begin{matrix} (1-a,1) \\ \\ (0,1)\,,(1-c,1) \end{matrix}\right) = \frac{\Gamma(a)}{\Gamma(b)}\,{}_1F_1(a;c;-z)$$

Notes: The following generalized hypergeomeiric series ${}_1F_1(a;c;x)$ is also called the confluent hypergeometric function of Kummer. (see [Erd+81],equation (1), 6.1, page 248.)

$$1+\frac{a}{c}\frac{x}{1!}+\frac{a(a+1)}{c(c+1)}\frac{x^2}{2!}+\cdots\,. \tag{1}$$

(1) satisfies the so-called confluent hypergeometric equation

$$x\frac{d^2y}{dx^2}+(c-x)\frac{dy}{dx}-ay=0.$$

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`.