

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

$$H_{1,2}^{1,1} \left( \begin{matrix} \cdot \\ (1-a, 1) \\ (0, 1), (1-c, 1) \end{matrix} \right)$$

**Notes:** (2.9.14) is the following confluent hypergeometric function of Kummer (see [Erd+81], equation (1), 6.1, page 248).

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

In the notation of generalized hypergeometric series, (1) is  ${}_1F_1(a; c; x)$ , which satisfies the differential equation

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

## 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>.