Generalized Hypergeometric Series.

$${}_4F_3(a_1,a_2,a_3,a_4;b_1,b_2,b_3;z)=$$

$$\frac{\Gamma(a_2-a_1)\,\Gamma(a_3-a_1)\,\Gamma(a_4-a_1)\prod_{k=1}^{3}\Gamma(b_k)}{\Gamma(a_2)\,\Gamma(a_3)\,\Gamma(a_4)\prod_{j=1}^{3}\Gamma(b_j-a_1)}(-z_0)^{-a_1\left(\left\lfloor\frac{\arg(z_0-z)}{2\pi}\right\rfloor+1\right)}\left(-\frac{1}{z_0}\right)^{-a_1\left\lfloor\frac{\arg(z_0-z)}{2\pi}\right\rfloor}\sum_{j=0}^{\infty}\frac{(a_1)_j\,(-z_0)^{-j}}{j!}$$

$${}_4F_3\left(a_1-b_1+1,a_1-b_2+1,a_1-b_3+1,j+a_1;a_1-a_2+1,a_1-a_3+1,a_1-a_4+1;\frac{1}{z_0}\right)(z-z_0)^j+$$

$$\frac{\Gamma(a_1-a_2)\,\Gamma(a_3-a_2)\,\Gamma(a_4-a_2)\prod_{k=1}^{3}\Gamma(b_k)}{\Gamma(a_1)\,\Gamma(a_3)\,\Gamma(a_4)\prod_{j=1}^{3}\Gamma(b_j-a_2)}(-z_0)^{-a_2\left(\left\lfloor\frac{\arg(z_0-z)}{2\pi}\right\rfloor+1\right)}\left(-\frac{1}{z_0}\right)^{-a_2\left\lfloor\frac{\arg(z_0-z)}{2\pi}\right\rfloor}\sum_{j=0}^{\infty}\frac{(a_2)_j\,(-z_0)^{-j}}{j!}$$

$${}_4F_3\left(a_2-b_1+1,a_2-b_2+1,a_2-b_3+1,j+a_2;-a_1+a_2+1,a_2-a_3+1,a_2-a_4+1;\frac{1}{z_0}\right)(z-z_0)^j+$$

$$\frac{\Gamma(a_1-a_3)\,\Gamma(a_2-a_3)\,\Gamma(a_4-a_3)\prod_{k=1}^{3}\Gamma(b_k)}{\Gamma(a_1)\,\Gamma(a_2)\,\Gamma(a_4)\prod_{j=1}^{3}\Gamma(b_j-a_3)}(-z_0)^{-a_3\left(\left\lfloor\frac{\arg(z_0-z)}{2\pi}\right\rfloor+1\right)}\left(-\frac{1}{z_0}\right)^{-a_3\left\lfloor\frac{\arg(z_0-z)}{2\pi}\right\rfloor}\sum_{j=0}^{\infty}\frac{(a_3)_j\,(-z_0)^{-j}}{j!}$$

$${}_4F_3\left(a_3-b_1+1,a_3-b_2+1,a_3-b_3+1,j+a_3;-a_1+a_3+1,-a_2+a_3+1,a_3-a_4+1;\frac{1}{z_0}\right)(z-z_0)^j+$$

$$\frac{\Gamma(a_1-a_4)\,\Gamma(a_2-a_4)\,\Gamma(a_3-a_4)\prod_{k=1}^{3}\Gamma(b_k)}{\Gamma(a_1)\,\Gamma(a_2)\,\Gamma(a_3)\prod_{j=1}^{3}\Gamma(b_j-a_4)}(-z_0)^{-a_4\left(\left\lfloor\frac{\arg(z_0-z)}{2\pi}\right\rfloor+1\right)}\left(-\frac{1}{z_0}\right)^{-a_4\left\lfloor\frac{\arg(z_0-z)}{2\pi}\right\rfloor}\sum_{j=0}^{\infty}\frac{(a_4)_j\,(-z_0)^{-j}}{j!}$$

$${}_4F_3\left(a_4-b_1+1,a_4-b_2+1,a_4-b_3+1,j+a_4;-a_1+a_4+1,-a_2+a_4+1,-a_3+a_4+1;\frac{1}{z_0}\right)(z-z_0)^j\ /;$$

$$|z_0|>1\bigwedge\forall_{\{j,k\},\{j,k\}\in\mathbb{Z}\wedge j\neq k\wedge 1\leq j\leq 4\wedge 1\leq k\leq 4}\left(a_j-a_k\notin\mathbb{Z}\right)$$

In mathematics, a generalized hypergeometric series is a power series in which the ratio of successive coefficients indexed by n is a rational function of n. Notation - Terminology - Basic properties - Identities.The notation for generalized hypergeometric functions was introduced by Pochhammer in and modified by Barnes (, ab; Slater , p. 2; Hardy.Chapter 16 Generalized Hypergeometric Functions and Meijer G -Function. R. A. Askey Department of Mathematics, University of Wisconsin, Madison.formula involving products of generalized hypergeometric series and generalization of Kummer's second transformation formulas available in.stand out among other generalized hypergeometric functions by the power-law form Generalized hypergeometric function is one of the most.Before the year the literature dealing with generalized hypergeometric series was somewhat scattered, but in that year. Professor G. H. Hardy published .The generalized hypergeometric function is given by a Hypergeometric Series, i.e., a series for which the ratio of successive terms can be written.Moore, C. N. Review: W. N. Bailey, Generalized Hypergeometric Series. Bull. Amer. Math. Soc. 42 (), ontheroadwithmax.com Hypergeometric type functions have a long list of applications in the field of sciences. A .. Another special case is that of the confluent hypergeometric function.We find two-sided inequalities for the generalized hypergeometric function of the form [Math Processing Error] with positive parameters restricted by certain.Some special cases of the generalized hypergeometric function q+1Fq with rational numbers as parameters are given in tabular form. These results complement.The generalized hypergeometric series is numerically evaluated using extended precision subroutines. Cases involving large, complex arguments are shown to.Abstract: Essentially, whenever a generalized hypergeometric series can be summed in terms of gamma functions, the result will be important.See also the basic or q-analog of the hypergeometric series in q-functions. . Gives the confluent hypergeometric function of the first kind.Let [equation] denote the generalized hypergeometric function [equation] where no denominator parameter can be zero or a negative integer and (a,n) denotes.Products of Generalized Hypergeometric Series. W. N. Bailey Search for more papers by this author W. N. Bailey Search for more papers by this author.Functions NF (x1,,xN) which are a straightforward generalisation of standard hypergeometric functions of N variables are introduced. A convenient operator.The generalized hypergeometric function of order p, q is defined as follows: F p q (a ; b ; z) = F p q (a 1.Buy Generalized hypergeometric series (Cambridge tracts in mathematics and mathematical physics No. 32) on ontheroadwithmax.com ? FREE SHIPPING on qualified.

[PDF] The 1998 Good Curry Guide
[PDF] Designing Tube Preamps for Guitar and Bass, 2nd Edition
[PDF] Dennis of Fortgranite Co. Wicklow (The Landed Gentry