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On certain transformation formulae for terminating hypergeometric series

Mohammad Shahjade, * Mohd. Nafees Siddiqui and **Manoj Kumar Pathak

Head, Department of Mathematics ,
MANUU, Poly. 8th Cross, 1st Stage,
3rd Block, Nagarbhavi, Bangalore -72.
E-mail:-mohammadshahjade@gmail.com
*Department of Mathematics,
ICE College of Engineering and Technology
Knowledge park 1, Greater Noida (UP) India
E-mail:- siddiqui.nafees80@gmail.com
** Department of Mathematics,
Late VPSS Janta PG College,
Kundabharopur, Malipur, Sultanpur (UP) India
E-mail:- meetmanoj266@gmail.com

Abstract: In this paper, making use of Bailey's Lemma and certain known summation formulae an attempt will be made to establish transformations involving terminating basic hypergeometric series. We shall deduce the transformations involving terminating and truncated series from our results
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1. Introduction, Notation and Definition

Throughout this paper we shall adopt the following notation and definition;
For any numbers a and q, real or complex and $|q| < 1$, let

$$[\alpha;q]_n \equiv [\alpha]_n = \begin{cases} (1-\alpha)(1-\alpha q)(1-\alpha q^2)...(1-\alpha q^{n-1}); & n > 0 \\ 1 & ; \quad n = 0 \end{cases} \tag{1.1}$$

Accordingly, we have

$$[\alpha;q]_\infty = \prod_{n=0}^{\infty}(1-\alpha q^n)$$