

SOME FINITE SUMS INVOLVING MULTIPLE GAUSSIAN
HYPERGEOMETRIC FUNCTIONS OF
EXTON AND SRIVASTAVA

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Abstract: In this paper, we obtain some interesting finite sums (not recorded earlier) of general triple hypergeometric series $F^{(3)}$ of Srivastava in terms of general double hypergeometric series G of Exton, by series rearrangement technique.

Keywords and Phrases: Pochhammer's symbol; Double hypergeometric functions of Exton and Srivastava; Combinatorial identity; Series iteration technique.

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1. Introduction

In 1967, Srivastava[17,p.428] defined the general triple hypergeometric function $F^{(3)}$ in the following form:

$$F^{(3)} \left[\begin{array}{l} (a_A) :: (b_B); (d_D); (e_E) : (g_G); (h_H); (\ell_L); \\ (q_Q) :: (r_R); (s_S); (t_T) : (u_U); (v_V); (w_W); \end{array} \quad x, y, z \right]$$