

SOME SUMMATION THEOREMS  
AND TRANSFORMATIONS FOR  $Q$ -SERIES

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ABSTRACT. We introduce a double sum extension of a very well-poised series and extend to this the transformations of Bailey and Sears as well as the  ${}_6\phi_5$  summation formula of F. H. Jackson and the  $q$ -Dixon sum. We also give  $q$ -integral representations of the double sum. Generalizations of the Nassrallah-Rahman integral are also found.

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