

**CERTAIN IDENTITIES DEDUCED FROM SEARS  
TRANSFORMATION**

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**Abstract:** In this paper certain identities have been deduced from the Sears Transformation formula.

**Keywords and Phrases:** Identity, Sears-transformation formula, mock theta function, summation formula.

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**1. Introduction, Notations and Definitions**

As usual for complex numbers  $a$  and  $q$ ,  $|q| < 1$ , the  $q$ -shifted factorial is defined as,

$$(a; q)_n = (1 - a)(1 - aq) \dots (1 - aq^{n-1}), \quad n > 0,$$