

IDENTITIES, CONTINUED FRACTIONS AND PARTITION THEORETIC INTERPRETATIONS

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Abstract: In this paper, taking two identities of Rogers-Ramanujan type, a continued fraction has been established and partition theoretic interpretations of the identities have also been given with proofs.

Keywords and Phrases: Identity, continued fraction, partition theoretic interpretation.

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1. Introduction, Notations and Definitions

Recall the usual q-series notations,

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