

1135-11-227

Hannah E Burson* (hburso2@illinois.edu). *Combinatorial interpretations of false theta function identities.*

How do you prove that two q -series are equal? One way to prove q -series identities is to interpret both sides combinatorially as generating functions for partitions. In his lost notebook, Ramanujan introduced many identities related to the false theta function

$$f(q) = \sum_{n=0}^{\infty} (-1)^n q^{2n(n+1)}.$$

The original proofs of these identities are all analytic. We illustrate the technique of combinatorial interpretations with a new bijective proof of one of these identities. (Received August 14, 2017)