

1067-11-2334 **Zhu Cao***, Hume Hall 305, University, MS 38677. *On Somos' dissection identities.*

We give proofs of a list of M. Somos' dissection identities. An eta function identity presented by B. C. Berndt and W. B. Hart, a theorem by H. -C. Chan on the congruence property of $a(n)$ with generating function $(q; q)_{\infty}^{-1}(q^2; q^2)_{\infty}^{-1}$, and a theorem by G. E. Andrews, A. Schilling and S. O. Warnaar are showed to be related to dissection identities. Several new corollaries are also presented as applications. (Received September 22, 2010)