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**Andrea Jedwab\*** (jedwab@usc.edu), 3620 S Vermont Ave, KAP 464D, Los Angeles, CA 90089,  
and **Susan Montgomery** (smontgom@usc.edu). *A  $q$ -identity related to a comodule.*

We determine a set of identities that are equivalent to a certain algebra being a comodule over the Taft algebra. We then show that the algebra is in fact a comodule algebra by giving a direct combinatorial proof of the identities.

These identities involve the  $q$ -binomial coefficients, where  $q$  is a primitive  $n$ th root of unity and  $n^2$  is the dimension of Taft algebra. (Received September 17, 2010)