

1112-05-577

**Brian K Miceli\*** (bmiceli@trinity.edu), One Trinity Place, Mathematics Dept., San Antonio, TX 78212. *The Laplace Transform and Some Combinatorial Identities.*

By considering the Laplace transform of certain functions, we generate various well-established combinatorial identities, such as

$$\sum_{j=0}^n (-1)^j \binom{n}{j} = 0.$$

This method yields new identities as well, which we will provide, along with as many combinatorial proofs as possible. (Received August 11, 2015)