1084-13-155 **S. Spiroff*** (spiroff@olemiss.edu), Department of Mathematics, Hume Hall 305, P.O. Box 1848, University, MS 38677. *A comparison of dimensions and degrees, and the eta invariant.*

For a graded complete intersection R and finitely generated R-modules M and N, we compare the dimension of the tensor product of M and N with dim M + dim N – dim R, and relate these to a generalized version of Hochster's theta invariant, also known as Dao's eta invariant. Specifically, we give a Bézout-like result relating the degrees of M and N to the degrees of the torsion modules of M and N, the degree of R, and eta. Additional results are obtained when R has isolated singularity or the tensor product of M and N has finite length. (Received August 30, 2012)