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Sandra Spiroff* (spiroff@olemiss.edu), Department of Mathematics, University of Mississippi, Hume Hall 305, P.O. Box 1848, University, MS 38677. *Expected Dimension versus Actual Dimension*. Preliminary report.

We compare the dimension of $M \otimes N$ with $\dim M + \dim N - \dim R$ when R is a graded complete intersection with isolated singularity, and M and N are finitely generated R -modules. In addition, we provide a Bézout-like result relating the degrees of M and N to the degrees of the torsion modules of M and N and the degree of R . A generalized version of Hochster's theta invariant plays a role. (Received August 29, 2011)