1024-18-26 **Alina C. Iacob*** (iacoba@uncw.edu), Department of Mathematics, UNC Wilmington, 601 South College Road, Wilmington, NC 28403. *Absolute, Gorenstein, and Tate torsion modules.*

We show that there is an Avramov-Martsinkovsky type exact sequence connecting the absolute torsion functors, the Gorenstein torsion functors and the Tate torsion functors. We prove that if R is a Gorenstein ring then the Tate torsion modules $\widehat{Tor}_n^R(M,N)$, $n \geq 1$ can be computed using either a complete resolution of M_R or using a complete resolution of ${}_RN$. We also show that over a Gorenstein ring a left R-module N is Gorenstein flat if and only if $Gtor_1^R(-,N) = 0$. (Received November 22, 2006)