

Problem Set 3

Due: February 26, 2014

1. Let $R = \mathbb{C}[t]/(t^2)$, and let $N = R/(t)$. Show that $\text{Ext}^i(N, N) \cong \mathbb{C}$ for all $i \geq 0$.
2. Weibel, Exercise 2.3.5.
3. Weibel, Exercise 2.3.7.
4. Weibel, Exercise 2.4.4. (Just do the “homological” version.)
5. Weibel, Exercise 2.7.5. (You will have to read Application 2.7.8 to do this.)