Math 565

Winter 2020

Homework 2

1. Do exercises 12 and 13 from Chapter 5 in Vick (p. 142). These exercises both follow from properties of products that we have established; you do not need to resort to chain level considerations.

2. Let X be any space and R any commutative ring. Suppose that $u \in H^i(\Sigma X; R)$ and $v \in H^j(\Sigma X; R)$ with $i > 0$, $j > 0$. Prove that $u \cup v = 0$.