

Math 534B Homework 6.

Due 3/22

1) Compute the simplicial homology of the 3-sphere using the Δ -complex structure of two tetrahedra identified along its boundary.

2) A simplicial complex is a Δ -complex where the image of the vertices determine the image of the simplices (each vertex maps to a unique point in the space X). Give a Δ -complex structure on the 2-sphere, 3-sphere, and the 2-torus that is a simplicial complex.

3) Hatcher 2.1: Exercise 6

4) Hatcher 2.1: Exercise 9

More practice:

Hatcher 2.1, Exercises 3, 4