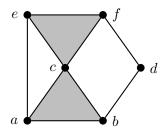
## Computing Simplicial Homology

**MATH 348** 

Consider the following simplicial complex K.



- **1.** What are the dimensions of  $C_0$ ,  $C_1$ , and  $C_2$ ?
- **2.** Write a matrix representing the map  $\delta_1$ .

- **3.** What is the dimension of  $H_0(K)$ ?
- **4.** Write a matrix representing the map  $\delta_2$ .

- **5.** What is dimension of  $H_1(K)$ ?
- **6.** What are the dimensions of  $H_n(K)$  for n > 1?