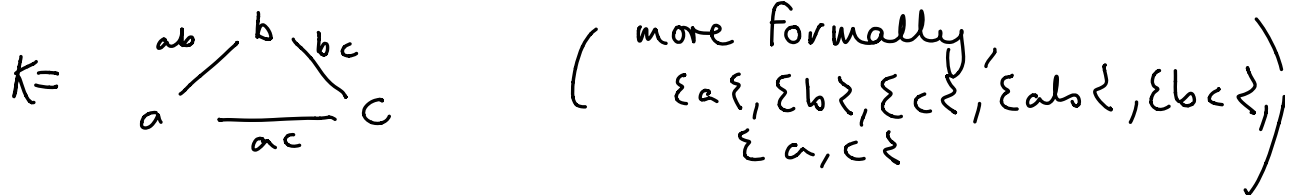
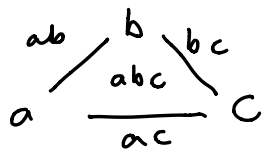


① Consider the simplicial complex



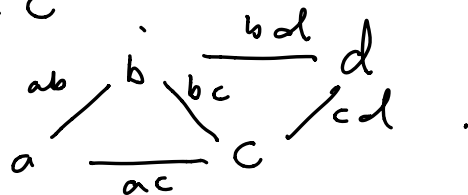
- Calculate the chain complex $C(K)$ and its homology.

② Do the same for



③

And



④

And $K = \underset{\circ}{a} \quad \underset{\circ}{b}$

⑤

Prove that if K is a simplicial complex then $C(K)$ is in fact a chain complex - i.e.

Why does $d_n \circ d_{n+1} = 0$ hold?
To begin with, think about why

$$C(K)_z \xrightarrow{d_0 - d_1 + d_2} C(K)_1 \xrightarrow{d_0 - d_1} C(K)_0$$

equals 0 .