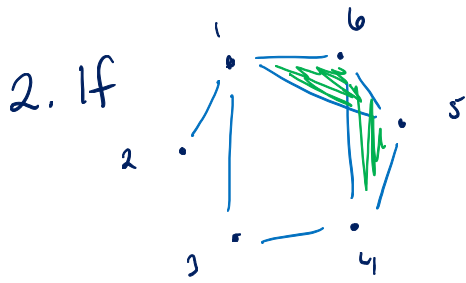
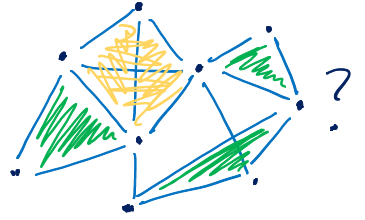


# Homework 2

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1. How many elements are in the basis of  $C_2$  for



is our simplicial complex? What does  $\sigma_{1,3} + \sigma_{3,4} + \sigma_{4,6} - \sigma_{1,6}$  correspond to?

If we are working in  $\mathbb{Z}_2$  coefficients, what happens if we take a path twice? Thrice?

3. Recall  $\circ$