1. **What is a hypergraph? Why is handling a hypergraph challenging?**

A hypergraph is similar to a traditional graph where there are nodes and edges. However, in a traditional graph, edges connect two nodes only, while in a hypergraph, edges can connect to more than two nodes. Hypergraph allows relationships involving more than two elements and each edge in a hypergraph is a subset of nodes.

Handling a hypergraph is challenging because the relationships among nodes are complex and make it difficult to visualize and analyze the relationship. In addition, there’s limited tools and algorithms that can be used on hypergraphs.

1. **What approach have you taken to handle a hypergraph? Why?**

I create the instance matrix by looking at the circuit images and creating it by hand. I haven’t found any way to create the instance matrix using the small circuit data right now.

1. **What questions do you have about the data?**

I am curious about how to create the instance matrix using the small circuit data that can preserve the information on the type of node as well. I am also confused about the purpose and the meaning of the “cell” feature in the cell instances.

1. **Next week we will start talking about algorithms, computations, and analyses which can be run on these graphs. What ideas or questions do you have from the pre-session lecture and reading?**

I am curious about how to apply different algorithms and computation to our data. In addition, I was trying to use the ford-fulkerson algorithm for my task 2 but I don’t know if we can apply that algorithm to our graph learning about chips.