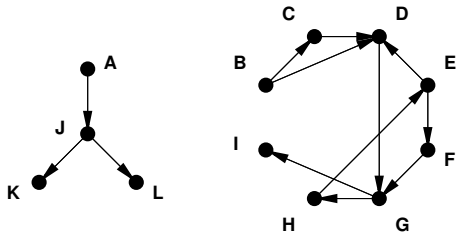
M2 – NAM (Homework)

Other graph flavors

Exercise 1 — *Graph*

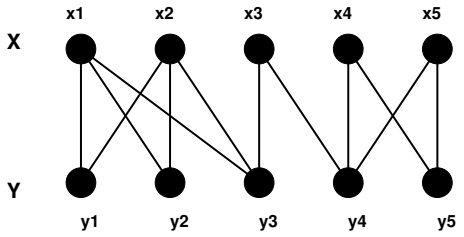
We consider the following directed graph G_d.



- Give its strongly connected components and after identifying the largest one give its upstream in-component and downstream out-component.

Exercise 2 — *Bipartite graphs*

We consider the following bipartite graph G_b.



- Draw a weighted projection on X nodes of graph G_b.

Exercise 3 — *Connection between directed graphs and bipartite graphs*

- Suppose you have a directed graph, can you think of a way of representing it with a (undirected) bipartite graph which would contain the same information?