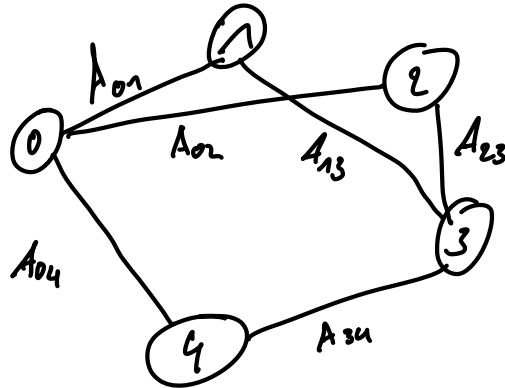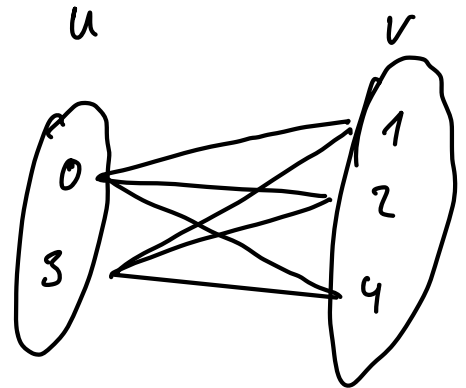# Problem 1-1

1.) symmetric $\longrightarrow$ undirected

2)

3) yes, its possible because here is one
correct example.

- one can partite the graph
into 2 disjoint sets U, V that
do not have edges within
the set.

4)

Adjacency list

Node	adjacency
0	1, 2, 4
1	0, 3
2	0, 3
3	1, 2, 4
4	0, 3

Edge list

edges
0, 1
0, 2
0, 4
1, 3
2, 3
3, 4

Problem 1-2

1) $N_n(t) = t \longrightarrow T$

2) $N_L(t) = t-1 \longrightarrow T-1$

3) $\langle h \rangle(t) = \dfrac{2L}{N} = \dfrac{2(t-1)}{t} = 2 - \dfrac{2}{t}$

4)

$\langle h \rangle(t) \xrightarrow{t \to \infty} 2$