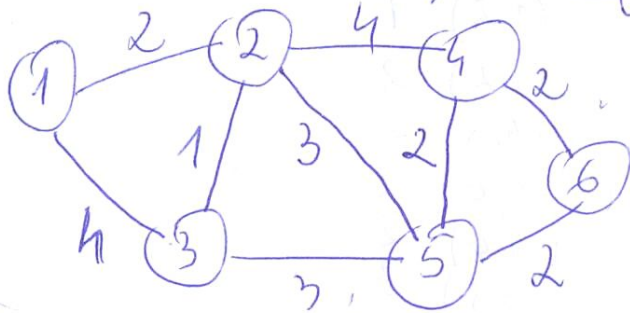


Minimum spanning tree:

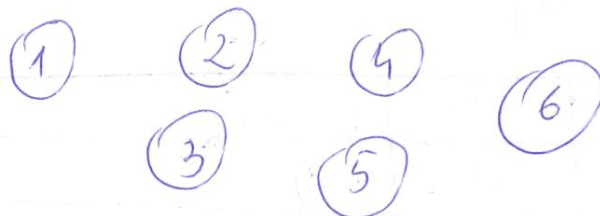


edges sorted:

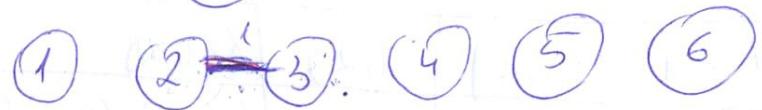
- (2,3): 1
- (1,2): 2 ✓
- (4,5): 2
- (4,6): 2
- (5,6): 2
- (2,5): 3
- (3,5): 3
- (1,3): 4
- (2,4): 4

Kruskal's algorithm

Initialization



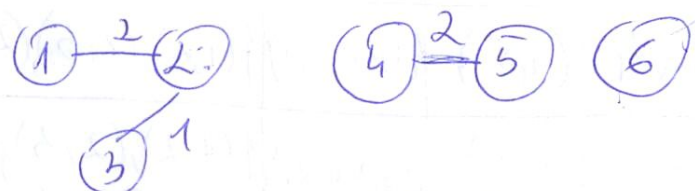
iteration 1: (2,3) selected



iteration 2: (1,2) selected



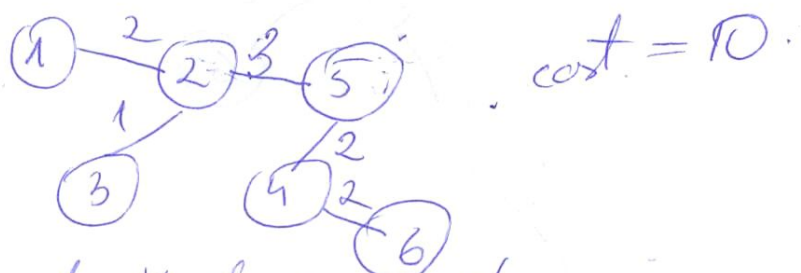
iteration 3: (4,5) selected



iteration 4: (4,6) selected



iteration 5: (2,5) selected



For 6 vertices, there

are $5 = 6 - 1$ edges, one component that is a tree.

The other edges will not be selected because they will form cycles.