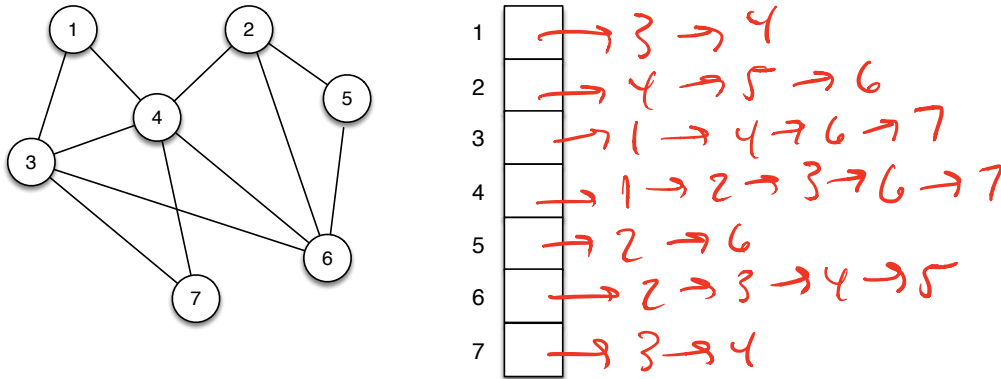
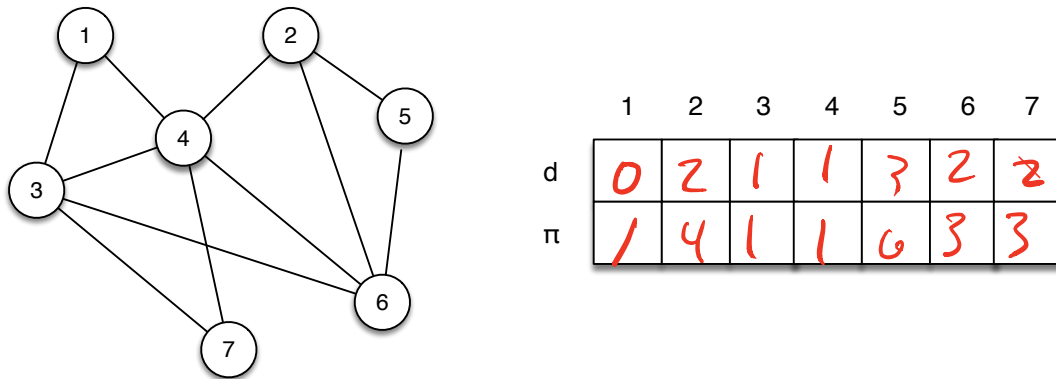


For the following graph,

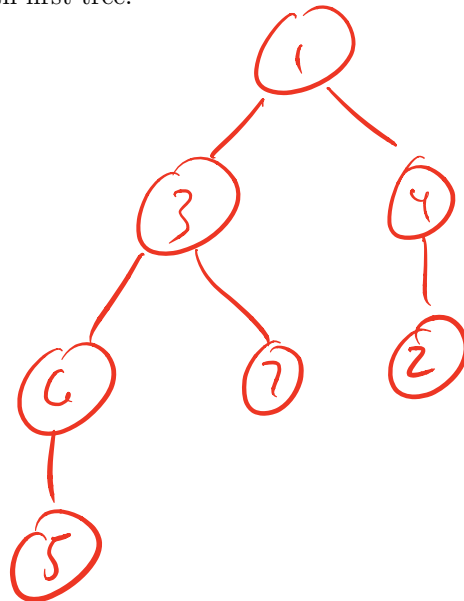
(a) Give an *adjacency list* representation for the graph. Order the lists by increasing vertex indices.



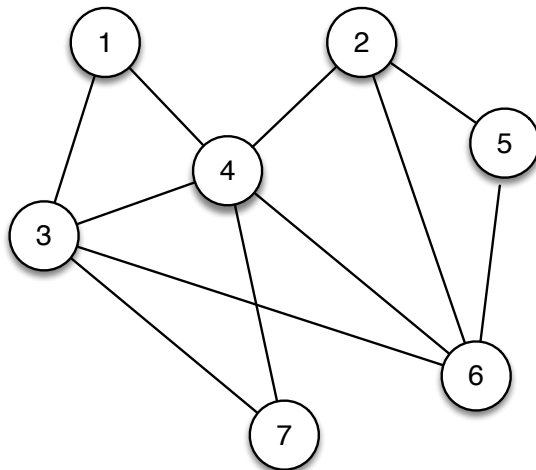
(b) Perform a BFS using vertex 1 as the source completing the table.



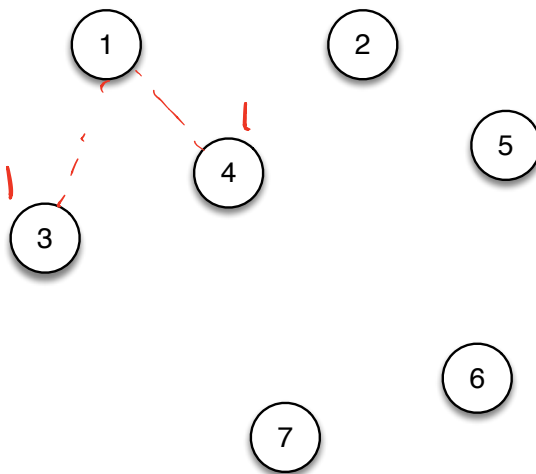
(c) Draw the final breadth first tree.



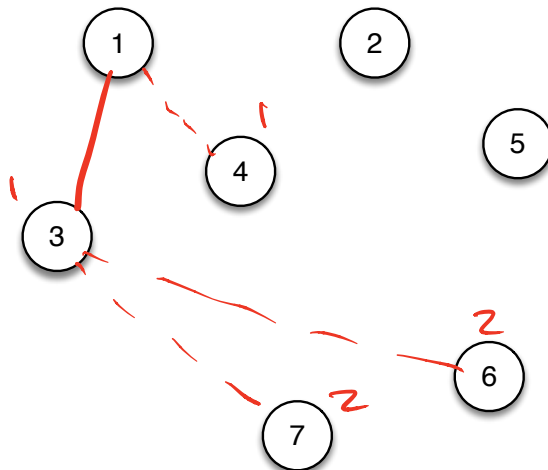
$\langle 1 \rangle$



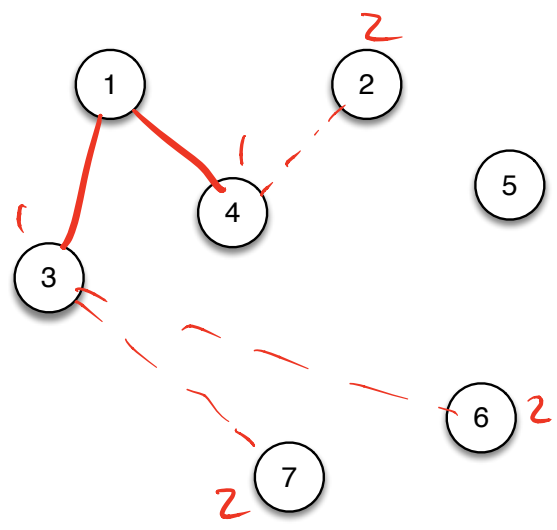
$\langle 4, 3 \rangle$



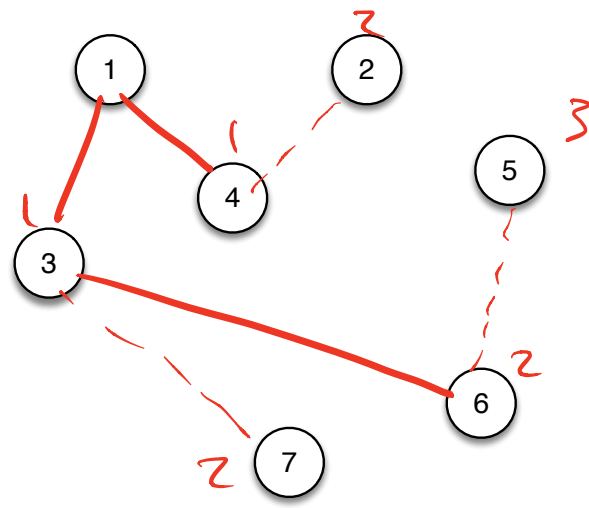
$\langle 7, 6, 4 \rangle$



$\langle 2, 7, 6 \rangle$



$\langle 5, 2, 7 \rangle$



$\langle 5, 2, 7 \rangle$

