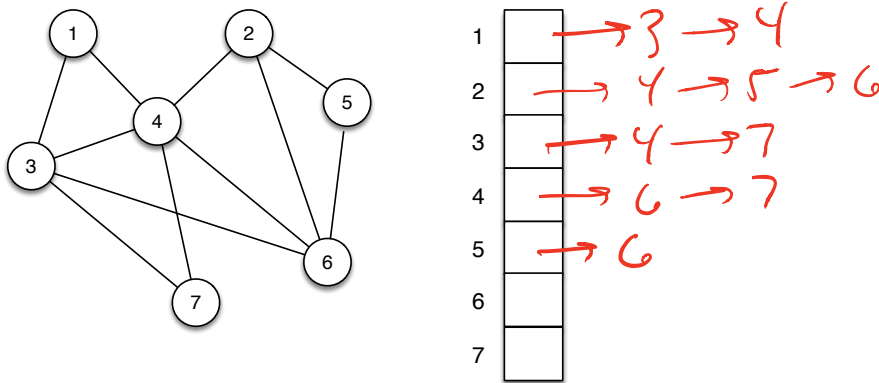
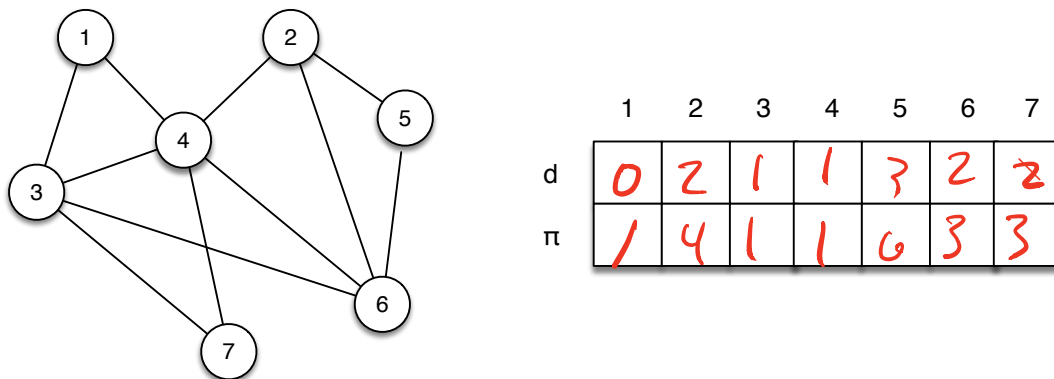


For the following graph,

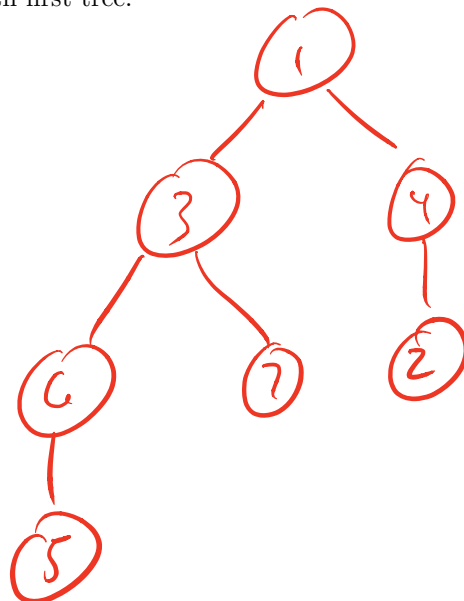
(a) Give an *adjacency list* representation for the graph. Order the lists by increasing vertex indices.

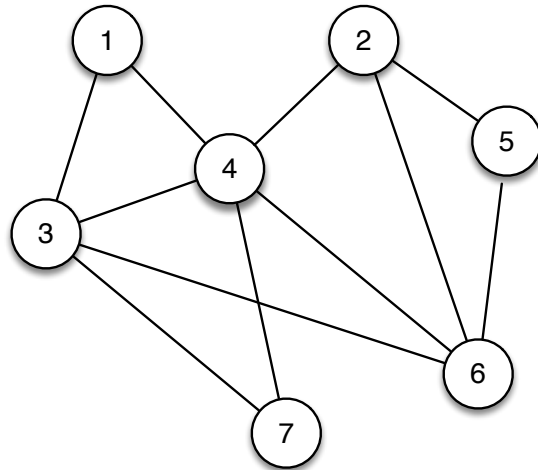


(b) Perform a BFS using vertex 1 as the source completing the table.

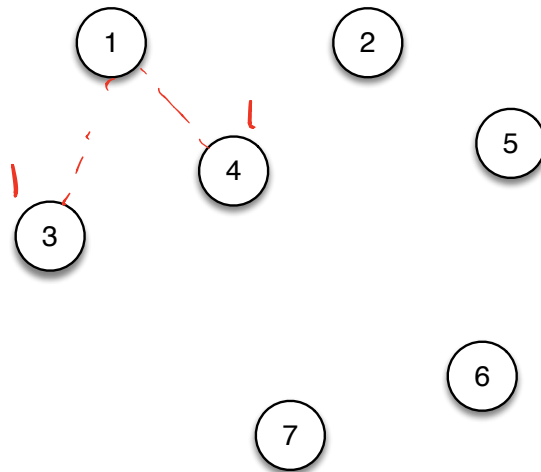


(c) Draw the final breadth first tree.

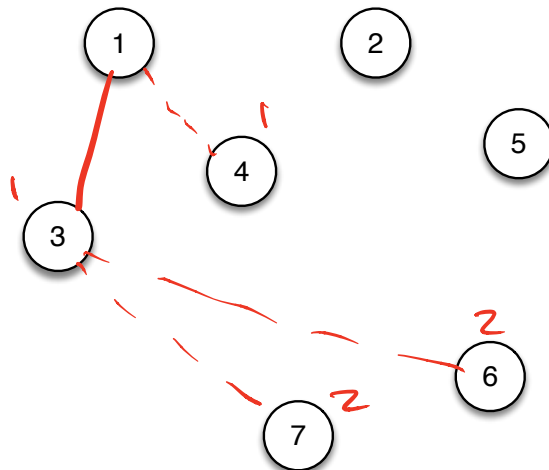




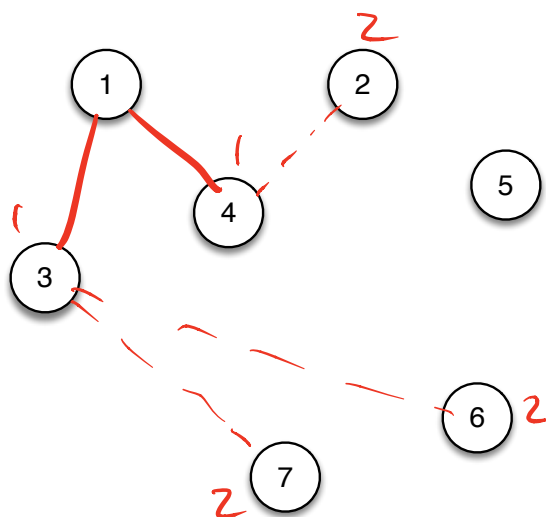
$\{3, 4\}$



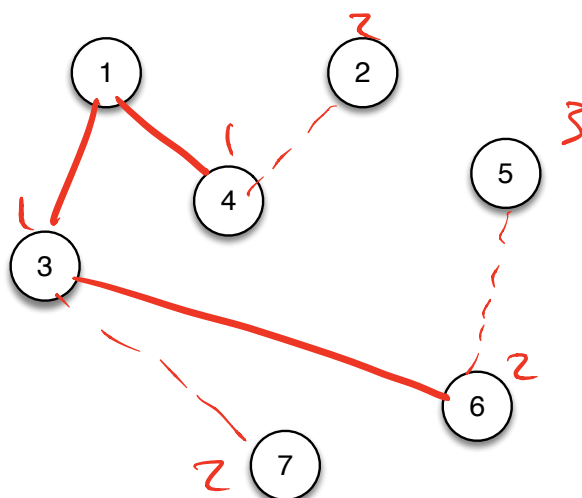
$\{4, 6, 7\}$



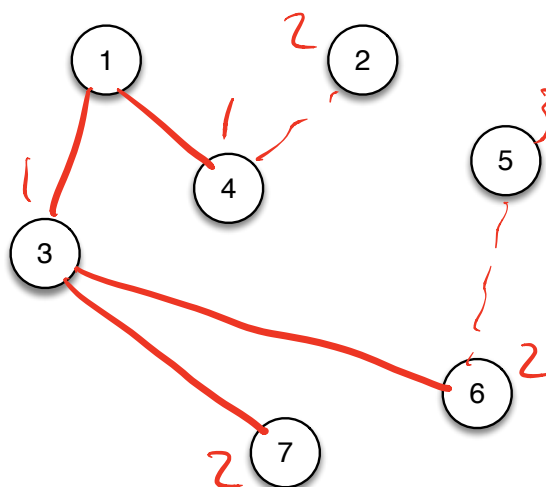
$\{6, 7, 2\}$



$\{7, 2, 5\}$



$\{2, 5\}$



{5}

