



INTRODUCTION TO **GRAPH** THEORY

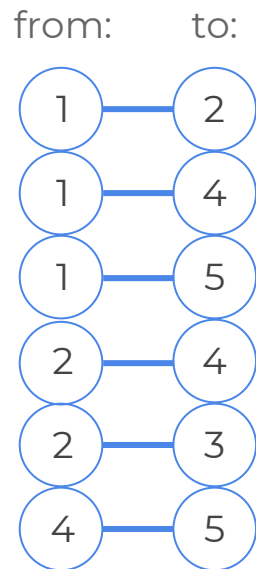
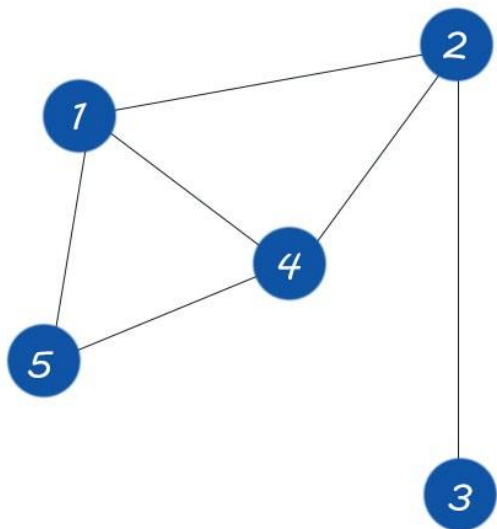


Представяния

- ▶ Списък на ребрата
- ▶ Матрица на съседство
- ▶ Списък на съседство

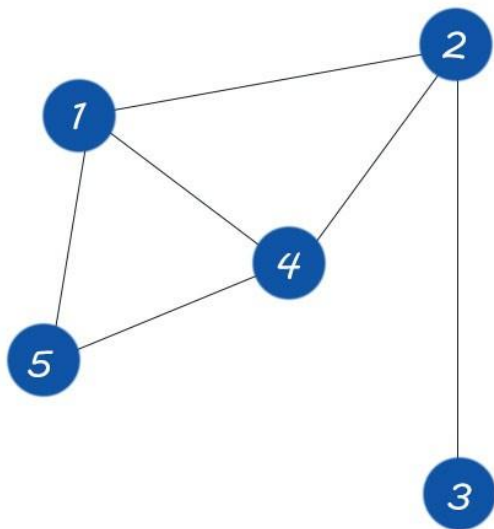


Списък на ребрата





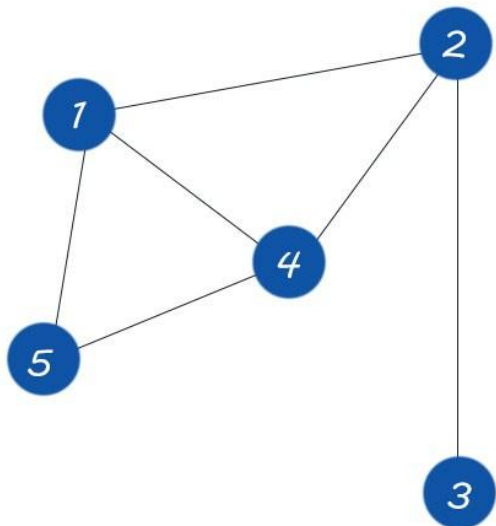
Матрица на съседство



Node	1	2	3	4	5
1	0	1	0	1	1
2	1	0	1	1	0
3	0	1	0	0	0
4	1	1	0	0	1
5	1	0	0	1	0



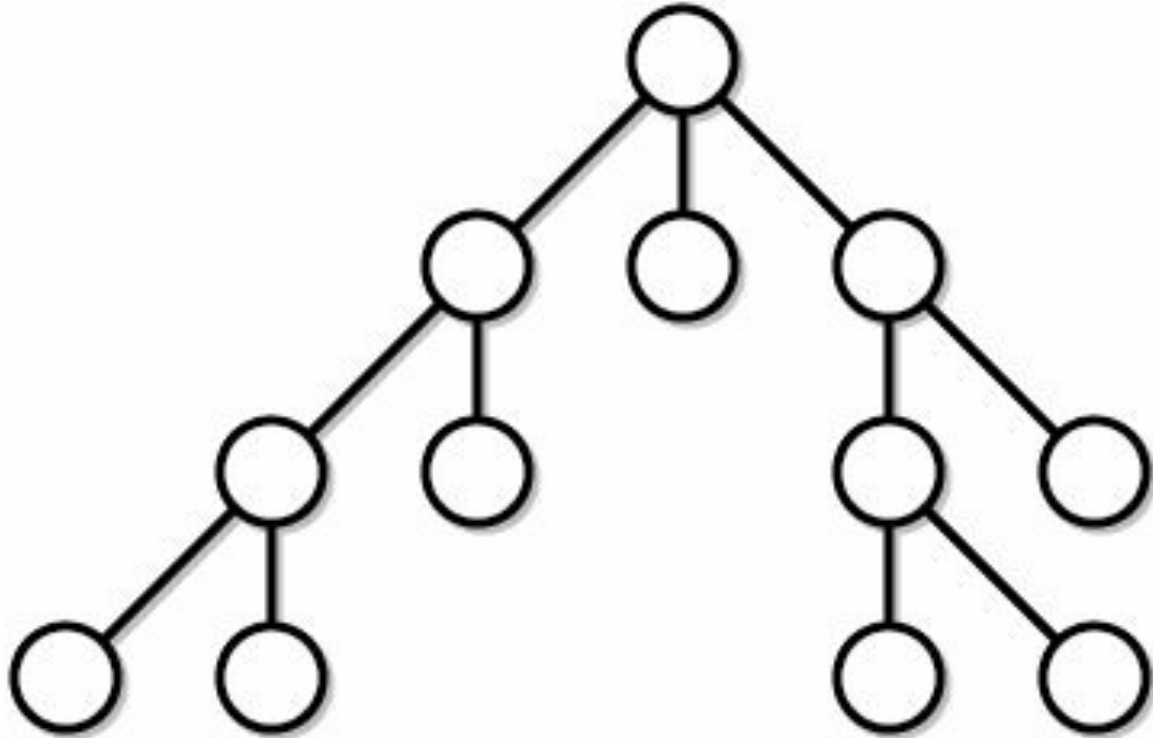
Списък на съседство



Node	Neighbours		
1	2	4	5
2	1	3	4
3	2		
4	1	2	5
5	1	4	



Обхождане в дълбочина (DFS)

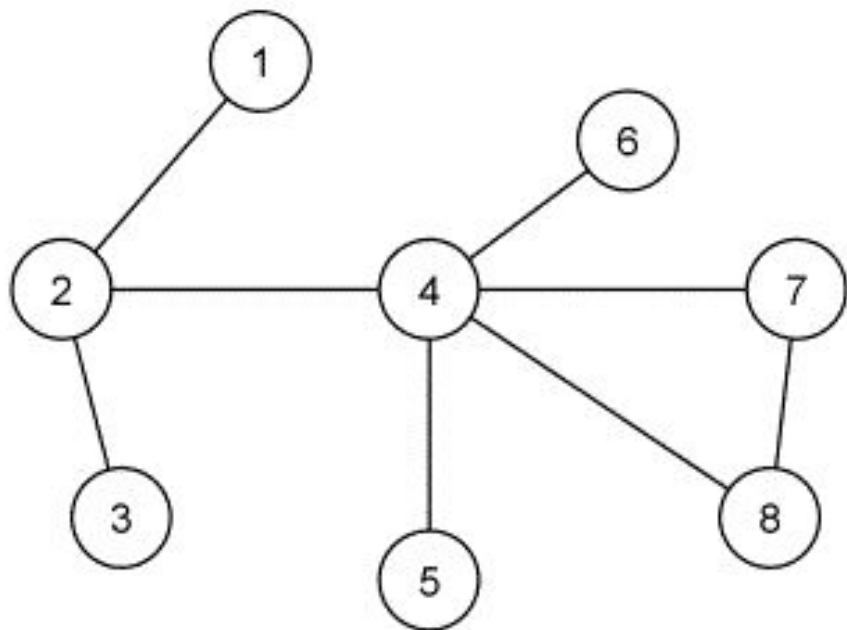


Adjacency Matrix $O(V^2)$

Adjacency List $O(V + E)$



Обхождане в ширина (BFS)



$Q_c:$

$Q_n:$

Adjacency Matrix $O(V^2)$

Adjacency List $O(V + E)$



Задачи

- ▶ Школа, Ябълки, Лабиринт
- ▶ Рицари
- ▶ White horses
- ▶ Cheating
- ▶ Hidden words
- ▶ Roads
- ▶ Square
- ▶ Breakout
- ▶ Castle

