

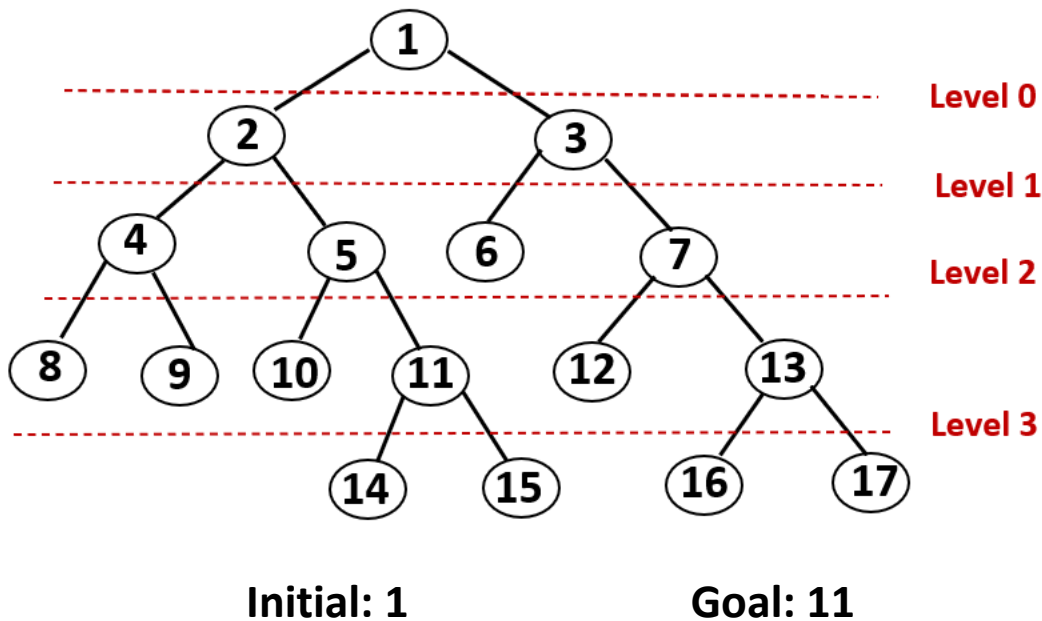
## Problem Solving

### Depth Iterative search:

- Combination of breadth first + Depth first

#### Example1:

##### 1. tree



#### Answer:

Iterative 0: 1

Iterative 1: 1, 2, 3

Iterative 2: 1, 2, 4, 5, 3, 6, 7

Iterative 3: 1, 2, 4, 8, 9, 5, 10, 11, 3, 6, 7, 12, 13

Iterative 4: 1, 2, 4, 8, 9, 5, 10, 11, 14, 15, 3, 6, 7, 12, 13, 16, 17

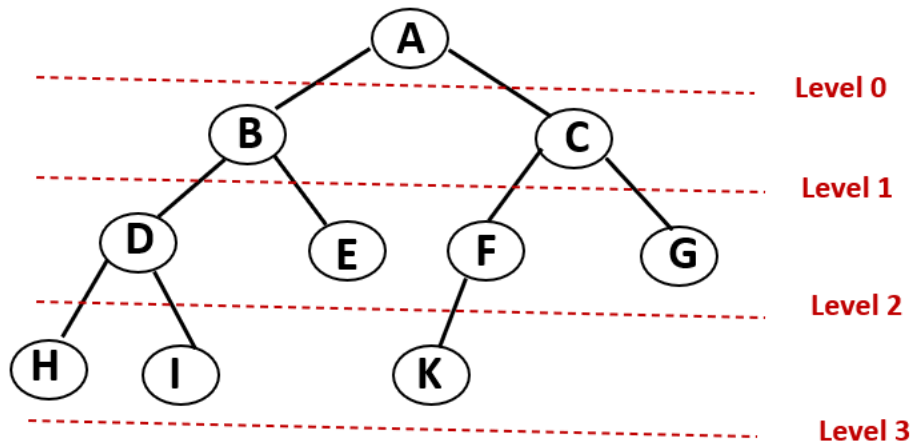
Iterative 5: 1, 2, 4, 8, 9, 5, 10, 11, 14, 15, 3, 6, 7, 12, 13, 16, 17

Iterative 6: 1, 2, 4, 8, 9, 5, 10, 11, 14, 15, 3, 6, 7, 12, 13, 16, 17

Iterative 7: 1,2,4,8,9,5,10,11,14,15,3,6,7,12,13,16,17

### Depth limit search:

#### Example1:



Initial: A

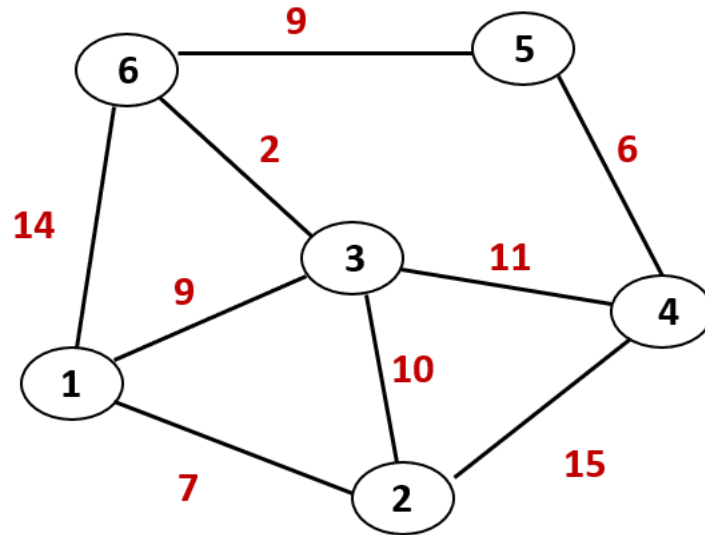
Goal: F

Limit: 3

Answer:

Path: A, B, D, E, C, F

### Uniform cost search:



■ Find the least cost goal

Initial: 1

Goal: 5

**Answer:**

Path: 1,3,6,5

Cost: 20