BFS & BST, July 30

1. Check if two trees are IsoMorphic
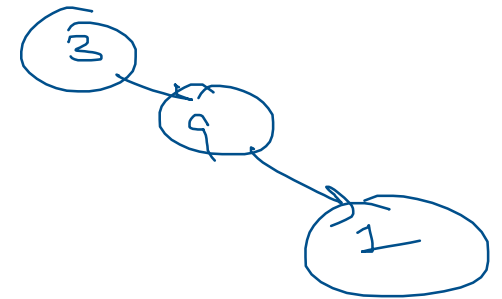2. BFS -> Breadth First Search

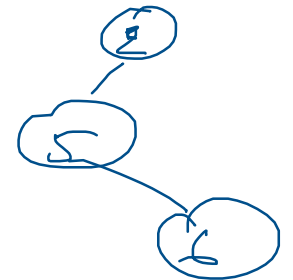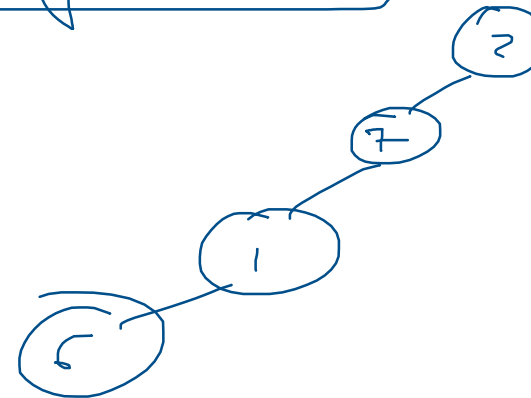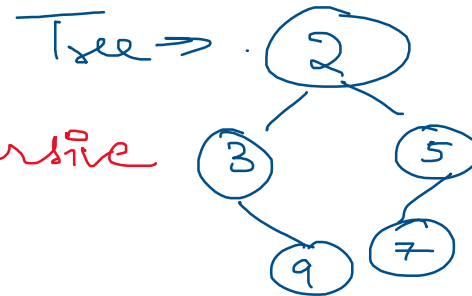Task:
1. Check if two trees are IsoMorphic
2. Print BFS levels in separate lines using Iterative approach.

Height = 0

Name of level ← 1 → No of level → 1

0, 1
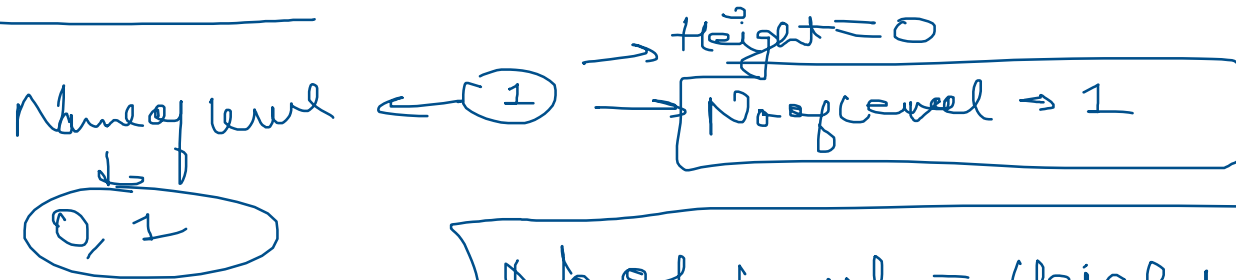
$$No \ of \ level = Height + 1$$

Tree →

```
        2
       / \
      3   5
      |   |
      9   7
```

BFS Recursive
is not
efficient.

**Iterative
BFS**

root
```
        2
       / \
      3   5
      |   |
      9   7
```

BFS → 2 3 5 9 7

```
  3
   \
    9
     \
      1
```

```
      9
     /
    5
     \
      6
```

```
        2
       /
      7
     /
    1
   /
  6
```

~~2~~ 3 5 9 7   ~~1~~ ~~2~~ ~~3~~ ~~4~~ ~~5~~

⟶ Queue

Queue

Print

2 3 5 9 7

B.S.T

⑨

15

10

97

2

(12) (16) (17)
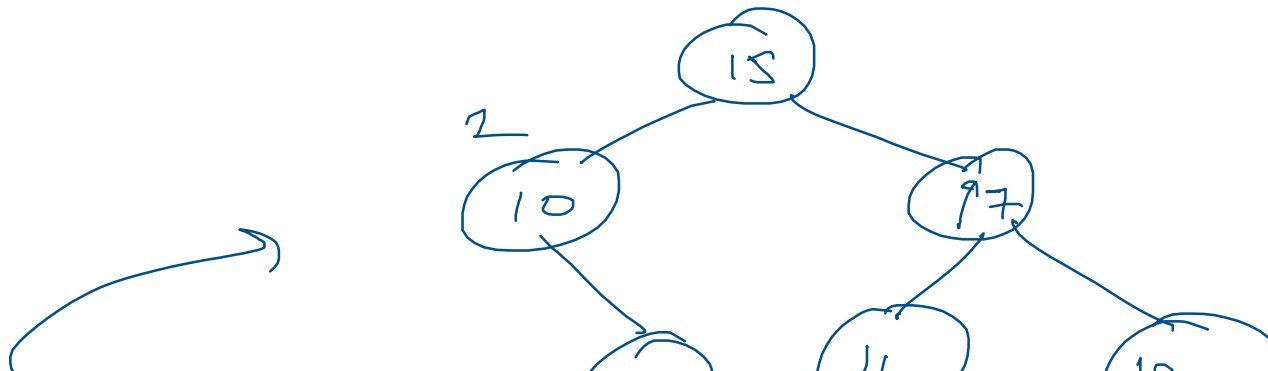
(9)
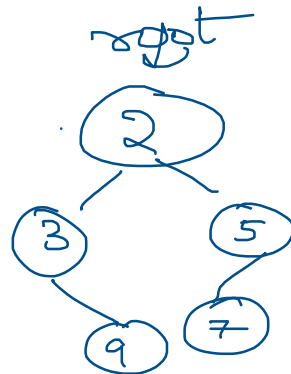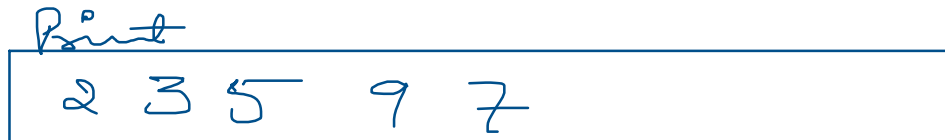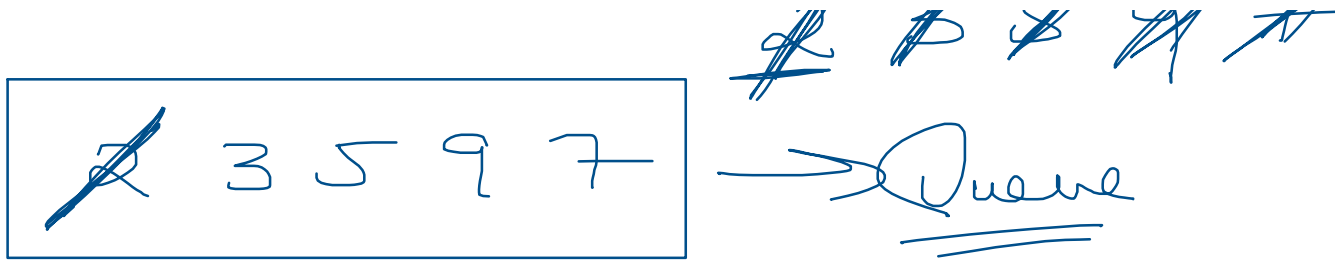
Steps for Insertion

1 → find the location to be added

2 → Create new Node

3 → return

Observation → InOrder of BST will be ascending.