Part A

1)


```
        7
     /     \
    12       8
   /   \    / \
  10   15  1   6
```

2)

```
        7
     /     \
    12       6
   /   \    / \
  10   15  1   8
```

3)

```
        7
     /     \
    12       1
   /   \    / \
  10   15  8   6
```

4)

```
        7
     /     \
    10       1
   /   \    / \
  12   15  8   6
```

5)

```
        1
     /     \
    10       7
   /   \    / \
  12   15  8   6
```
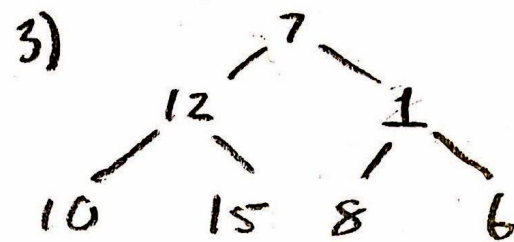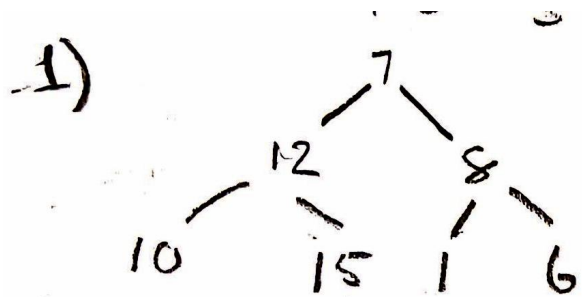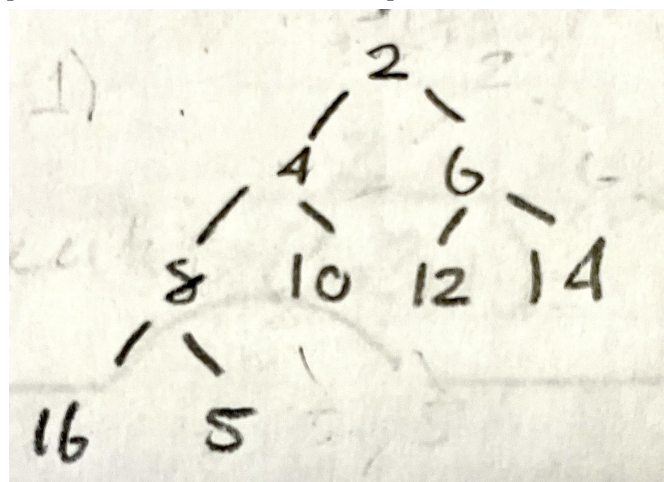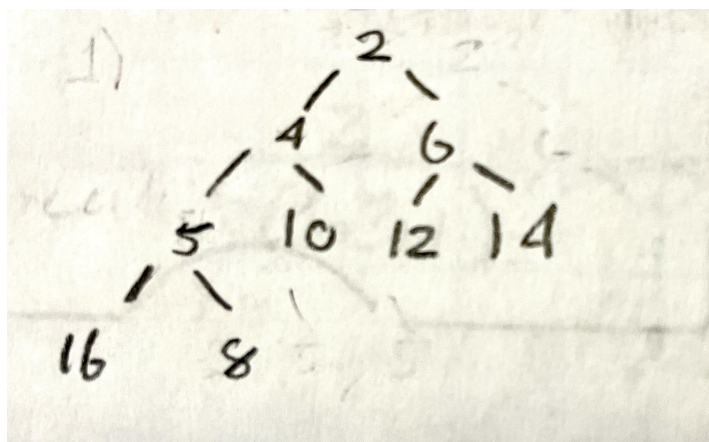
Part B

1. Initial: [2, 4, 6, 8, 10, 12, 14, 16]
2. Insert 5:
     a. [2, 4, 6, 8, 10, 12, 14, 16, 5]


```
1)
            2
         /     \
        4       6
       / \     / \
      8  10  12  14
     / \
    16  5
```
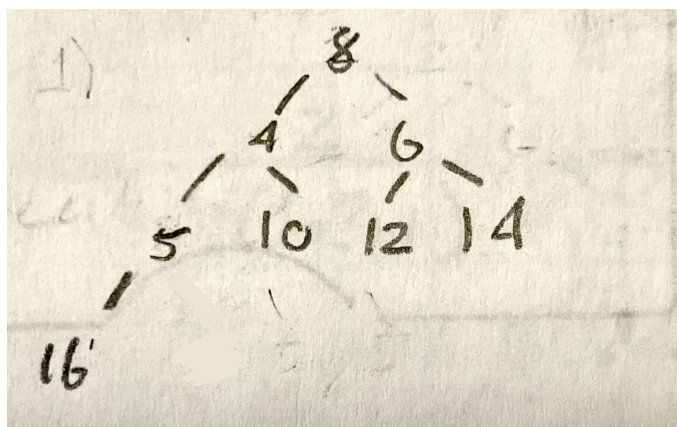
b. [2, 4, 6, 5, 10, 12, 14, 16, 8]
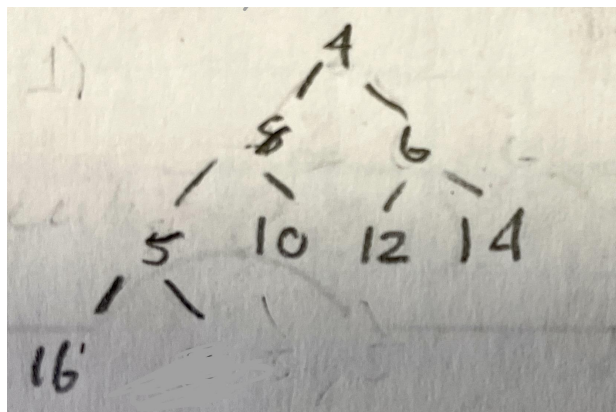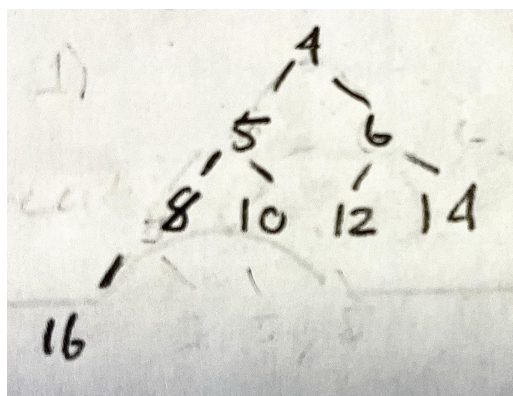

3. Pop (top element)

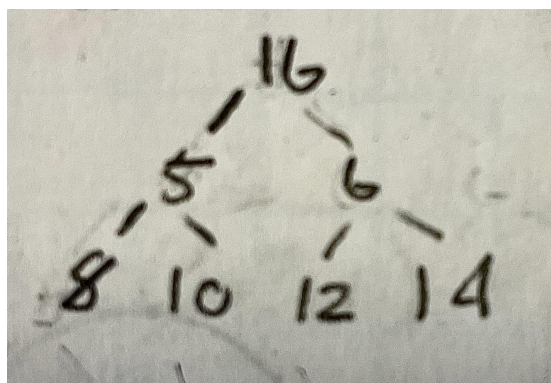a. [8, 4, 6, 5, 10, 12, 14, 16]

b. [4, 8, 6, 5, 10, 12, 14, 16]
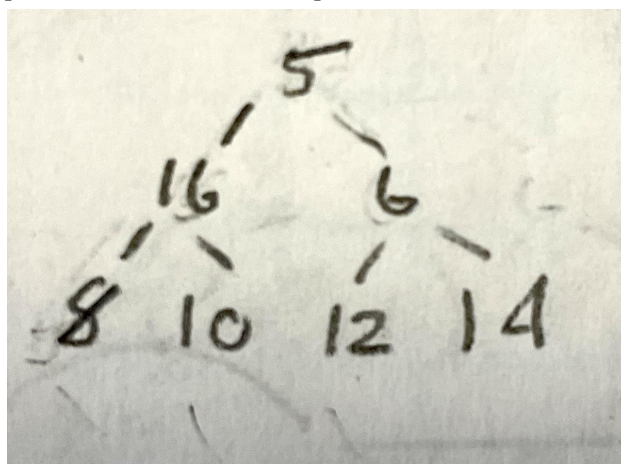
c. [4, 5, 6, 8, 10, 12, 14, 16]
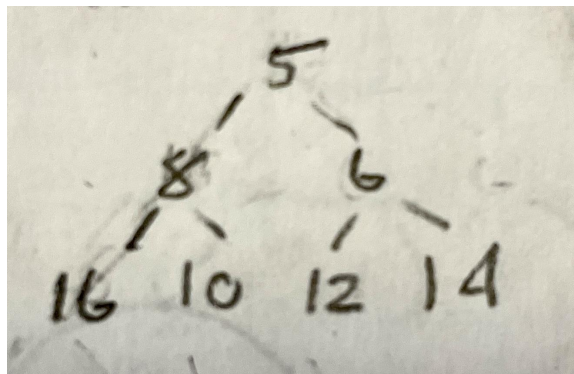

4. Pop (top element)
   a. [16, 5, 6, 8, 10, 12, 14]

   b. [5, 16, 6, 8, 10, 12, 14]
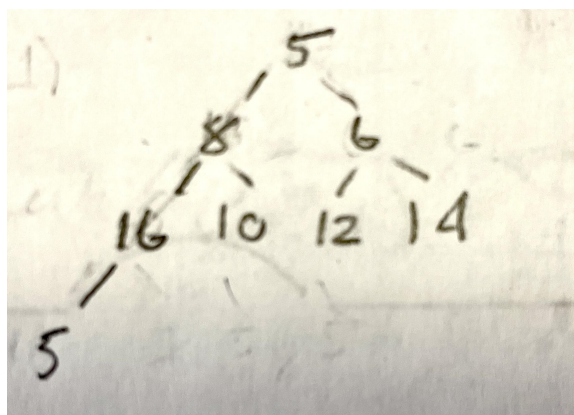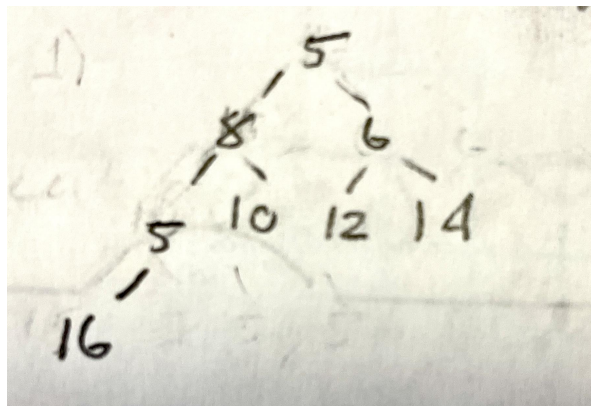
c. [5, 8, 6, 16, 10, 12, 14]

5. Insert 5:
    a. [5, 8, 6, 16, 10, 12, 14, 5]

    b. [5, 8, 6, 5, 10, 12, 14, 16]

c. [5, 5, 6, 8, 10, 12, 14, 16]