

```
public class Queue {
```

```
    int ini = 0;  
    int fin = 0;  
    int num = 0;  
    E Q[];
```

```
    public Queue (int t) {
```

```
        num = t;
```

```
        Q = (E[]) new Object[num];
```

```
    public void enqueue (E o) {
```

```
        if (size() == num - 1) {  
            throw new QueueException ("Full");
```

```
        } else {
```

```
            Q[fin] = o;
```

```
            fin = inc(fin);
```

```
        }
```

```
    public front () {
```

```
        if (empty())
```

```
            throw new EmptyQueueException ("Empty");
```

```
        return Q[ini];
```

```
    }
```

```
    public static int inc (int i) {
```

```
        return (1 + i) % num;
```

```
    public dequeue () {
```

```
        if (empty())
```

```
            throw new EmptyQueueException ("Empty");
```

```
        return
```

```
            E aux = Q[ini];
```

```
            Q[ini] = null;
```

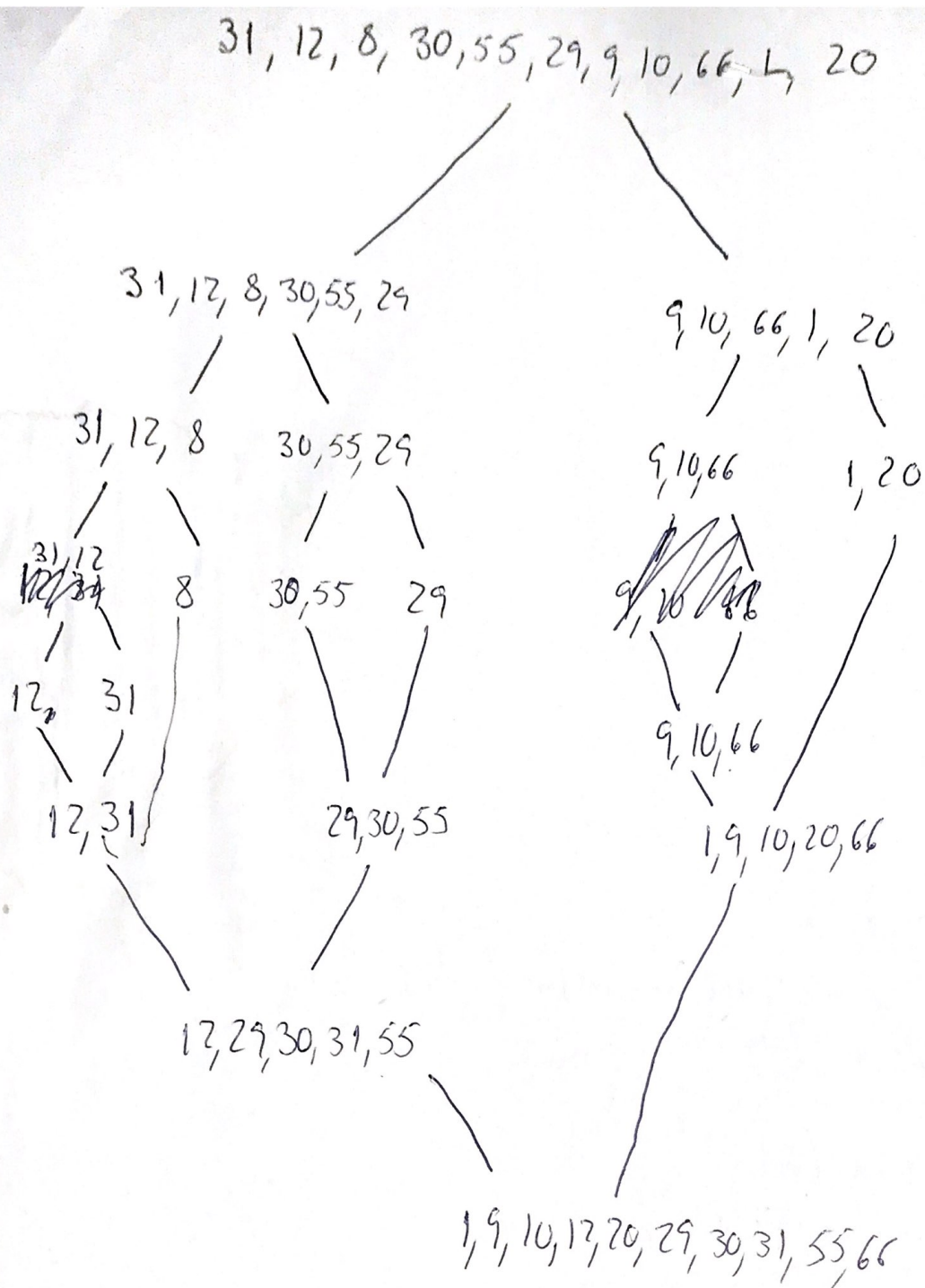
```
            ini = inc(ini);
```

```
        return aux;
```

```
    public int size () {
```

```
        return (num - ini + fin) % num;
```

```
    }
```



A