

## Largest Element in a List

I/p: l = [10, 5, 20, 8]

O/p: 20

I/p: l = [30, 30, 20]

O/p: 30

I/p: l = [40]

O/p: 40

```
print(max(l))
```

```
def getMax(l):  
    for x in l:  
        for y in l:  
            if y > x:  
                break  
            else:  
                return x  
    return None
```

Time complexity:  $O(n^2)$

### Efficient solution:

```
def getMax(l):  
    if not l:  
        return None  
    else:  
        res = l[0]  
        for i in range(1, len(l)):  
            if l[i] > res:  
                res = l[i]  
        return res
```

Time complexity:  $O(n)$