

Find the maximum of a list of numbers

' Aim:

To write a program to find the maximum of a list of numbers.

' Equipment's required:

1. Hardware – PCs
2. Anaconda – Python 3.7 Installation / Moodle-Code Runner

' Algorithm:

1. Get the list of marks as input
2. Use the sort() function or max() function or use the for loop to find the maximum mark.
3. Return the maximum value

' Program:

i) # To find the maximum of marks using the list method sort.

```
def max_marks(marks):  
    marks.sort()  
    large = marks[-1]  
    return large
```

ii) # To find the maximum marks using the list method max().

```
def max_marks(marks):  
    large = max(marks)  
    return large
```

iii) # To find the maximum marks without using builtin functions.

```
def max_marks(list1):  
    max = list1[0]  
    for i in list1:  
        if i > max:  
            max = i  
    return max
```

Sample Input and Output:

USING LIST METHOD SORT:

Test	Result
<code>print(max_marks([88, 67, 77, 93, 95, 11, 67, 89, 56, 89]))</code>	95
<code>print(max_marks([80, 60, 70, 90, 98, 65, 50, 89, 75, 85]))</code>	98

	Test	Expected	Got	
✓	<code>print(max_marks([88, 67, 77, 93, 95, 11, 67, 89, 56, 89]))</code>	95	95	✓
✓	<code>print(max_marks([80, 60, 70, 90, 98, 65, 50, 89, 75, 85]))</code>	98	98	✓
✓	<code>print(max_marks([81, 63, 74, 92, 100, 66, 50, 89, 75, 87]))</code>	100	100	✓

Passed all tests! ✓

USING LIST METHOD MAX:

Test	Result
<code>print(max_marks([88, 67, 77, 93, 95, 11, 67, 89, 56, 89]))</code>	95

	Test	Expected	Got	
✓	<code>print(max_marks([88, 67, 77, 93, 95, 11, 67, 89, 56, 89]))</code>	95	95	✓
✓	<code>print(max_marks([80, 60, 70, 90, 98, 65, 50, 89, 75, 85]))</code>	98	98	✓
✓	<code>print(max_marks([81, 63, 74, 92, 100, 66, 50, 89, 75, 87]))</code>	100	100	✓

Passed all tests! ✓

USING BUILT-IN FUNCTION:

Test	Result
<code>print(max_marks([88, 67, 77, 93, 95, 11, 67, 89, 56, 89]))</code>	95
<code>print(max_marks([80, 60, 70, 90, 98, 65, 50, 89, 75, 85]))</code>	98

	Test	Expected	Got	
✓	<code>print(max_marks([88, 67, 77, 93, 95, 11, 67, 89, 56, 89]))</code>	95	95	✓
✓	<code>print(max_marks([80, 60, 70, 90, 98, 65, 50, 89, 75, 85]))</code>	98	98	✓
✓	<code>print(max_marks([81, 63, 74, 92, 100, 66, 50, 89, 75, 87]))</code>	100	100	✓

Passed all tests! ✓

Result:

Thus the program to find the maximum of given numbers from the list is written and verified using python programming.