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NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Programming, Data Structures And Algorithms Using Python (course)



# Course outline

How does an NPTEL online course work? ()

### Week 1 : Introduction ()

Week 1 Quiz ()

Week 2: Basics of Python ()

# Week 2 Quiz

Week 2 Programming Assignment

Week 3: Lists, inductive

### Online Test 1 Question 4

Due on 2020-12-01, 12:00 IST

## Question 4

A list is a non-decreasing if each element is at least as big as the preceding one. For instance [], [7], [8,8,11] and [3,19,44,44,63,89] are non-decreasing, while [3,18,4] and [23,14,3,14,3,23] are not. Here is a recursive function to check if a list is non-decreasing. You have to fill in the missing argument for the recursive call.

```
def nondecreasing(1):
   if l==[] or len(1) == 1:
     return(True)
   else:
     return(...)
```

Open up the code submission box below and fill in the missing argument for the recursive call.

#### **Sample Test Cases**

	Input	
Test Case 1	nondecreasing([17])	True
Test Case 2	<pre>nondecreasing([])</pre>	True
Test Case 3	nondecreasing([3,19,44,44,63,89])	True
Test Case 4	nondecreasing([23,14,3,14,3,23])	False

function definitions, sorting ()

Week 3 Programming Assignment ()

Week 4:
Sorting,
Tuples,
Dictionaries,
Passing
Functions,
List
Comprehension
()

Week 4 Quiz ()

Week 4 Programming Assignment ()

Week 5: Exception handling, input/output, file handling, string processing ()

Week 5 Programming Assignment ()

Week 6: Backtracking, scope, data structures; stacks, queues and heaps ()

Week 6 Quiz ()

Test Case 5	nondecreasing([8,8,11])	True
Test Case 6	nondecreasing([3,18,4])	False

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Week 7: Classes, objects and user defined datatypes ()

Week 7 Quiz ()

Week 8: Dynamic programming, wrap-up ()

Week 8 Programming Assignment ()

Text
Transcripts ()

Books ()

Download Videos ()

Online Programming Test -Sample ()

Online Programming Test 1, 01 Dec 2020, 10:00-12:00 ()

Instructions (unit? unit=126&lesson=127)

- Online Test 1
  Question 1
  (/noc20\_cs26/progassignment?
  name=131)
- Online Test 1
  Question 2
  (/noc20\_cs26/progassignment?
  name=132)

- Online Test 1 Question 3 (/noc20\_cs26/progassignment? name=134)
- Online Test 1 **Question 4** (/noc20\_cs26/progassignment? name=136)
- Online Test 1 Question 5 (/noc20\_cs26/progassignment? name=137)
- Online Test 1 Question 6 (/noc20 cs26/progassignment? name=138)
- Online Test 1 Question 7 (/noc20\_cs26/progassignment? name=139)
- Online Test 1 Question 8 (/noc20\_cs26/progassignment? name=140)

Online **Programming** Test 2, 01 Dec 2020, 20:00-22:00 ()

Online **Programming** Test 1, 09 Mar 2021, 10:00-12:00 ()

Online **Programming** Test 2, 09 Mar 2021, 20:00-22:00

()