Floor, Ceil and Rint

108/115 challenges solved

Rank: 21237 | Points: 2165

Your Floor, Ceil and Rint submission got 20.00 points. Share Post

Try the next challenge | Try a Random Challenge

Problem Submissions Leaderboard Editorial

floor

The tool floor returns the floor of the input element-wise.

The floor of x is the largest integer i where $i \leq x$.

```
import numpy

my_array = numpy.array([1.1, 2.2, 3.3, 4.4, 5.5, 6.6, 7.7, 8.8, 9.9])
print numpy.floor(my_array)       #[ 1.  2.  3.  4.  5.  6.  7.  8.  9.]
```

ceil

The tool ceil returns the ceiling of the input element-wise.

The ceiling of x is the smallest integer i where $i \geq x$.

```
import numpy

my_array = numpy.array([1.1, 2.2, 3.3, 4.4, 5.5, 6.6, 7.7, 8.8, 9.9])
print numpy.ceil(my_array)        #[ 2.  3.  4.  5.  6.  7.  8.  9. 10.]
```

rint

The rint tool rounds to the nearest integer of input element-wise.

```
import numpy

my_array = numpy.array([1.1, 2.2, 3.3, 4.4, 5.5, 6.6, 7.7, 8.8, 9.9])
print numpy.rint(my_array)        #[ 1.  2.  3.  4.  6.  7.  8.  9. 10.]
```

Task

You are given a 1-D array, A. Your task is to print the $floor$, $ceil$ and $rint$ of all the elements of A.

Note

In order to get the correct output format, add the line **numpy.set_printoptions(legacy='1.13')** below the numpy import.

Input Format

A single line of input containing the space separated elements of array A.

Output Format

On the first line, print the $floor$ of A.

On the second line, print the $ceil$ of A.

On the third line, print the $rint$ of A.

Sample Input

```
1.1 2.2 3.3 4.4 5.5 6.6 7.7 8.8 9.9
```

Sample Output

```
[ 1.  2.  3.  4.  5.  6.  7.  8.  9.]
[ 2.  3.  4.  5.  6.  7.  8.  9. 10.]
[ 1.  2.  3.  4.  6.  7.  8.  9. 10.]
```

Change Theme Language Python 3

```
1  import numpy as np
2
3  np.set_printoptions(legacy='1.13')  # To match Hackerrank's output format
4
5  A = np.array(input().split(), float)
6
7  print(np.floor(A))
8  print(np.ceil(A))
9  print(np.rint(A))
10
```

EMACS Line: 10 Col: 1

Upload Code as File Test against custom input Run Code Submit Code

You have earned 20.00 points!
108/115 challenges solved.

94%

Congratulations

You solved this challenge. Would you like to challenge your friends?

Next Challenge

Test case 0

Test case 1

Test case 2

Compiler Message

```
Success
```

Input (stdin) Download

```
1.1 2.2 3.3 4.4 5.5 6.6 7.7 8.8 9.9
```

Expected Output Download

```
[ 1.  2.  3.  4.  5.  6.  7.  8.  9.]
[ 2.  3.  4.  5.  6.  7.  8.  9.  10.]
[ 1.  2.  3.  4.  6.  7.  8.  9.  10.]
```