

Floor, Ceil and Rint

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HackerRank

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

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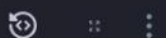
```
1.1 2.2 3.3 4.4 5.5 6.6 7.7 8.8 9.9
```

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.]
```

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Change Theme Language Python 3



```
1 import numpy  
2 numpy.set_printoptions(legacy='1.13')  
3 arr=numpy.array(list(map(float,input().split())))  
4 print(numpy.floor(arr))  
5 print(numpy.ceil(arr))  
6 print(numpy rint(arr))
```