Floor, Ceil and Rint

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.

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.]
```