Rounding Decimals

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Rounding Decimals

There are primarily five ways of rounding off decimals in NumPy:

- truncation
- fix
- rounding
- floor
- ceil

Truncation

Remove the decimals, and return the float number closest to zero. Use the `trunc()` and `fix()` functions.

Example

Truncate elements of following array:

```
import numpy as np

arr = np.trunc([-3.1666, 3.6667])
```

Example

Same example, using `fix()`:

```
import numpy as np

arr = np.fix([-3.1666, 3.6667])

print(arr)
```

Try it Yourself »

Rounding

The `around()` function increments preceding digit or decimal by 1 if >=5 else do nothing.

E.g. round off to 1 decimal point, 3.16666 is 3.2

Example

Round off 3.1666 to 2 decimal places:

```
import numpy as np

arr = np.around(3.1666, 2)

print(arr)
```

Floor

The floor() function rounds off decimal to nearest lower integer.

E.g. floor of 3.166 is 3.

Example

Floor the elements of following array:

```
import numpy as np

arr = np.floor([-3.1666, 3.6667])

print(arr)
```

Try it Yourself »

E.g. ceil of 3.166 is 4.

Example

Ceil the elements of following array:

```
import numpy as np

arr = np.ceil([-3.1666, 3.6667])

print(arr)
```

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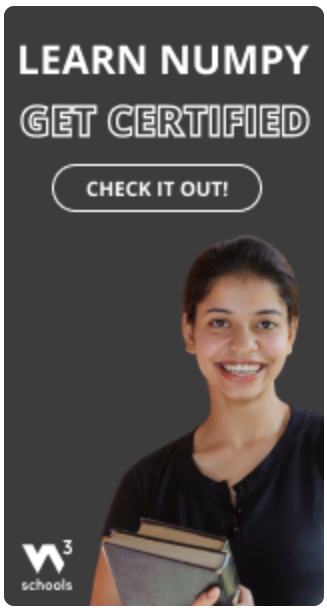
Exercise ?

Consider the following code:

```
import numpy as np
arr = np.trunc([5.998, 1.455])
print(arr)
```

What will be the result of `arr` ?

- ○ `[6. 1.]`
- ○ `[5. 1.]`
- ○ `[6. 2.]`



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