NumPy divide()

Summary: in this tutorial, you'll learn how to use the numpy `divide()` function or the `/` operator to find the quotient of two equal-sized arrays, element-wise.

Introduction to the Numpy subtract function

The `/` operator or `divide()` function returns the quotient of two equal-sized arrays (https://www.pythontutorial.net/python-numpy/create-numpy-array/) by performing element-wise division.

Let's take some examples of using the `/` operator and `divide()` function.

Using NumPy divide() function and / operator to find the quotient of two 1D arrays

The following example uses the `/` operator to find the quotient of two 1-D arrays:

```
import numpy as np

a = np.array([8, 6])
b = np.array([2, 3])
```

```
c = a/b
print(c)
```

Output:

```
[4. 2.]
```

How it works.

First, create two 1D arrays (https://www.pythontutorial.net/python-numpy/create-numpy-array/) with two numbers in each:

```
a = np.array([8, 6])
b = np.array([2, 3])
```

Second, find the quotient of a/b by using the `*` operator:

```
c = a / b
```

The `/` operator returns the quotient of each element in array a with the corresponding element in array b:

```
[8/2, 6/3] = [4,2]
```

Similarly, you can use the `divide()` function to get the quotient of two 1D arrays as follows:

```
import numpy as np

a = np.array([8, 6])
b = np.array([2, 3])
```

```
c = np.divide(a, b)
print(c)
```

Output:

```
[4. 2.]
```

Using NumPy divide() function and / operator to get the quotient of two 2D arrays

The following example uses the `/` operator to find the quotient of two 2D arrays:

```
import numpy as np

a = np.array([[10, 8], [6, 4]])
b = np.array([[5, 2], [2, 1]])

c = a/b
print(c)
```

Output:

```
[[2. 4.]
 [3. 4.]]
```

In this example, the `/` operator performs element-wise division:

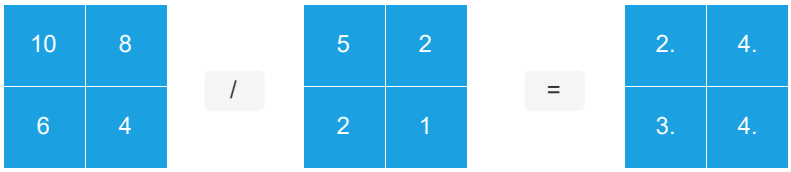
```
[[ 10/5  8/2]
 [3*7 4*8]]
```

Likewise, you can use the `divide()` function to find the products of two 2D arrays:

```
import numpy as np
```

```
a = np.array([[10, 8], [6, 4]])
b = np.array([[5, 2], [2, 1]])

c = np.divide(a, b)
print(c)
```



Output:

```
[[2. 4.]
 [3. 4.]]
```

Summary

- Use the `*` operator or `divide()` function to find the quotient of two equal-sized arrays.