

NumPy GCD Greatest Common Devisor

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Finding GCD (Greatest Common Devisor)

The GCD (Greatest Common Devisor), also known as HCF (Highest Common Factor) is the biggest number that is a common factor of both of the numbers.

Example

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Find the HCF of the following two numbers:

```
import numpy as np

num1 = 6
num2 = 9

x = np.gcd(num1, num2)
print(x)
```

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Finding GCD in Arrays

To find the Highest Common Factor of all values in an array, you can use the reduce()
method.

The reduce() method will use the ufunc, in this case the gcd() function, on each element, and reduce the array by one dimension.

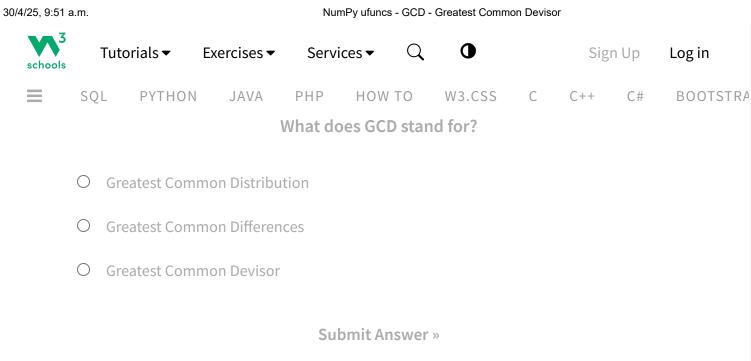
Example

Find the GCD for all of the numbers in the following array:

```
import numpy as np
arr = np.array([20, 8, 32, 36, 16])
x = np.gcd.reduce(arr)
print(x)
```

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Returns: 4 because that is the highest number all values can be divided by.



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