

# Reduce Function In Python

The **reduce(fun,seq)** function is used to **apply a particular function passed in its argument to all of the list elements** mentioned in the sequence passed along. This function is defined in “**functools**” module.

## Syntax of the Reduce function in Python

```
functools.reduce(function, iterable)
```

## Examples of Reduce Function in Python

**Example using lambda function (Summing Numeric Values)**

```
from functools import reduce

nums = [1, 2, 3, 4]
ans = reduce(lambda x, y: x + y, nums)
print(ans)
```

## Example using a Pre-defined function (Multiplying Numeric Values)

```
from functools import reduce
# calculates the product of two elements

def product(x,y):
    return x*y

ans = reduce(product, [2, 5, 3, 7])
print(ans)
```