| filter   | map   |
|--|---|
| <ul> <li>expects its function to do a comparison type of task to filter out the elements</li> <li>Function will be applied to only those objects of iterable who goes True on the condition specified in expression</li> </ul> | <ul> <li>evaluates the function expression and returns back the result as items.</li> <li>expects its functions to evaluate a statement to get some result.</li> <li>Map takes all objects in a list and allows you to apply a function to it Filter takes all objects in a list and runs that through a function to create a new list with all objects that return True in that function</li> <li>Function will be applied to all objects of iterable</li> </ul> |
| def is_even(num): return num % 2 == 0  | def square(num): return num * num   |
| <pre>nums = [2, 4, 6, 7, 8] filtered = filter(is_even, nums) print(*nums) print(*filtered)</pre>   | <pre>nums = [1, 2, 3, 4, 5] mapped = map(square, nums)  print(*nums) print(*mapped)</pre>   |
| The output of this would be 24678  | The output of this is  1 2 3 4 5 1 4 9 16 25  |
| 2468   |   |