Write a python code to explain map(),filter(),reduce(),lambda().

1.#MAP() function applies a given function to all the items in an input list

arr=[1,2,3,4,5]

arr=list(map(lambda x:x\*\*2 ,arr))

print(arr)

Output

[1, 4, 9, 16, 25]

2. #filter() function is used to filter the element of an iterable based on a certain condition

Fruits=["mango" ,"Orange","apple","cherry","grapes"]

print(list(filter(lambda fruit:'g' in fruit,Fruits)))

Output

['mango', 'Orange', 'grapes']

3.#reduce() functions applies a given function to all the items in an input list and retuns a single value

from functools import reduce

lst=[2,4,6,8,10]

print(reduce(lambda x,y:x+y,lst))

output

30

4. #lambda() is used to create small,anonymous function

b=lambda a:"even" if a%2==0 else "odd"

b(12)

Output

'even'