**Filter , map and reduce questions**

**1)filter**()

The **filter**() method filters the given sequence with the help of a function that tests each element in the sequence to be true or not.

**2)map()**

**Python map**() function is used to apply a function on all the elements of specified iterable and return **map** object. **Map** object is an iterator, so we can iterate over its elements. We can also convert **map** object to sequence objects such as list, tuple etc. using their factory function.

**3) reduce()**

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.

**4) Compare filter, map and reduce**

|  |  |  |
| --- | --- | --- |
| **Filter()** | **Map()** | **Reduce()** |
| Filters those that return the value true | Transform everything in the iterable | Is a two argument function |
| Returns a new list | Returns a new list | Doesn’t return a new list. Instead returns a single value |
| In python 3 , it a in-build function | In python 3 , it a in-build function | In Python 3, reduce() isn't a built-in function anymore, and it can be found in the functools module. |
| The syntax is :  filter(function,iterable(s)) | The syntax is :  map(function,iterable(s)) | The syntax is :  reduce(function,sequence[,initial] |