

filter

The **filter** built-in function will take a function and an iterable and return an iterator for those elements within the iterable for which the passed in function returns True. That statement sounds a bit confusing to read, so let's look at an example:

```
def less_than_ten(x):  
    return x < 10  
  
my_list = [1, 2, 3, 10, 11, 12]  
for item in filter(less_than_ten, my_list):  
    print(item)  
  
#1  
#2  
#3
```



Here we create a simple function that tests if the integer we pass to it is less than 10. If it is, then it returns True; otherwise it returns False. Next we create a list of 6 integers with half of them being less than 10. Finally we use **filter** to filter out the integers that are greater than ten and only print the ones that are less.

You may recall that the `itertools` module has a function that is similar to this one called **filterfalse**. That function is the opposite of this one and only returns elements of the iterable when the function returns False.