map

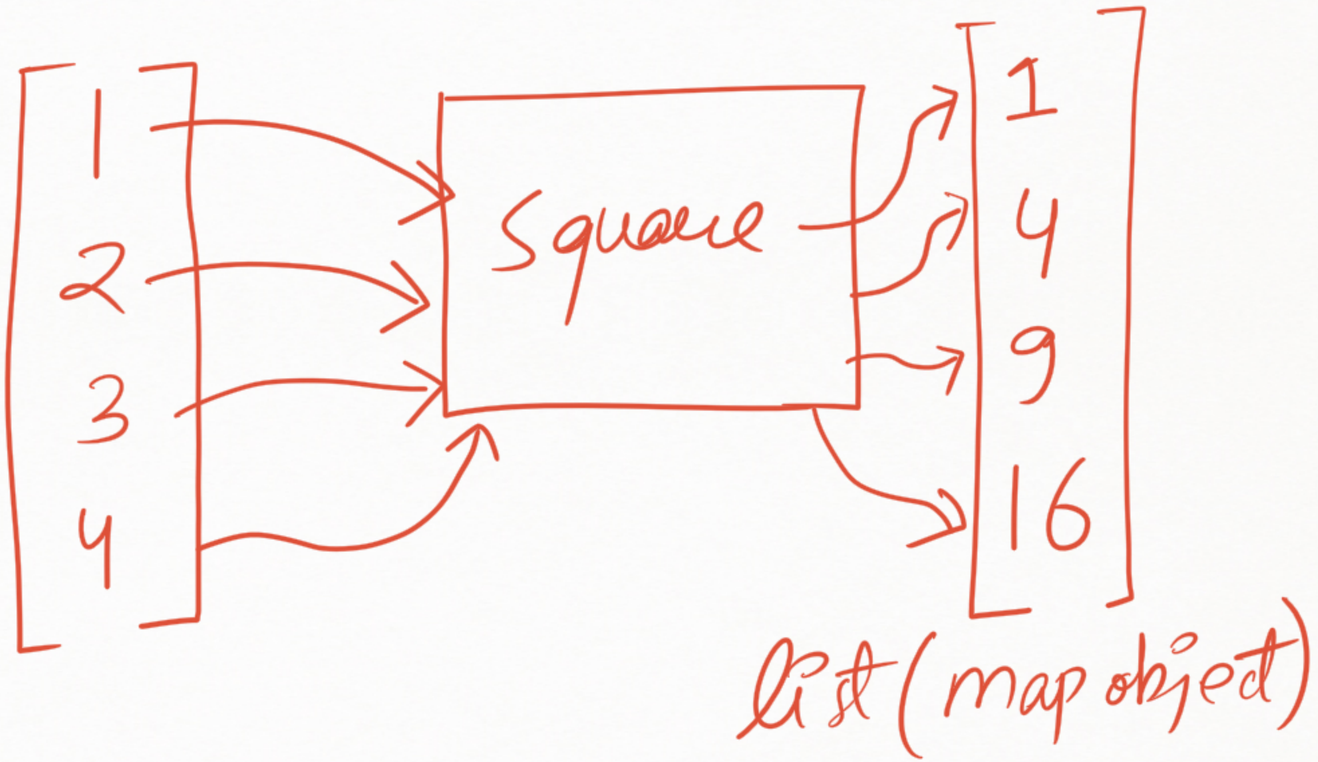
Syntax => map(function_name, iterable_name)

map

```
def sqr(n):
    return n**2
```

```
list(map(sqr,[1,2,3,4]))
```

```
[1, 4, 9, 16]
```



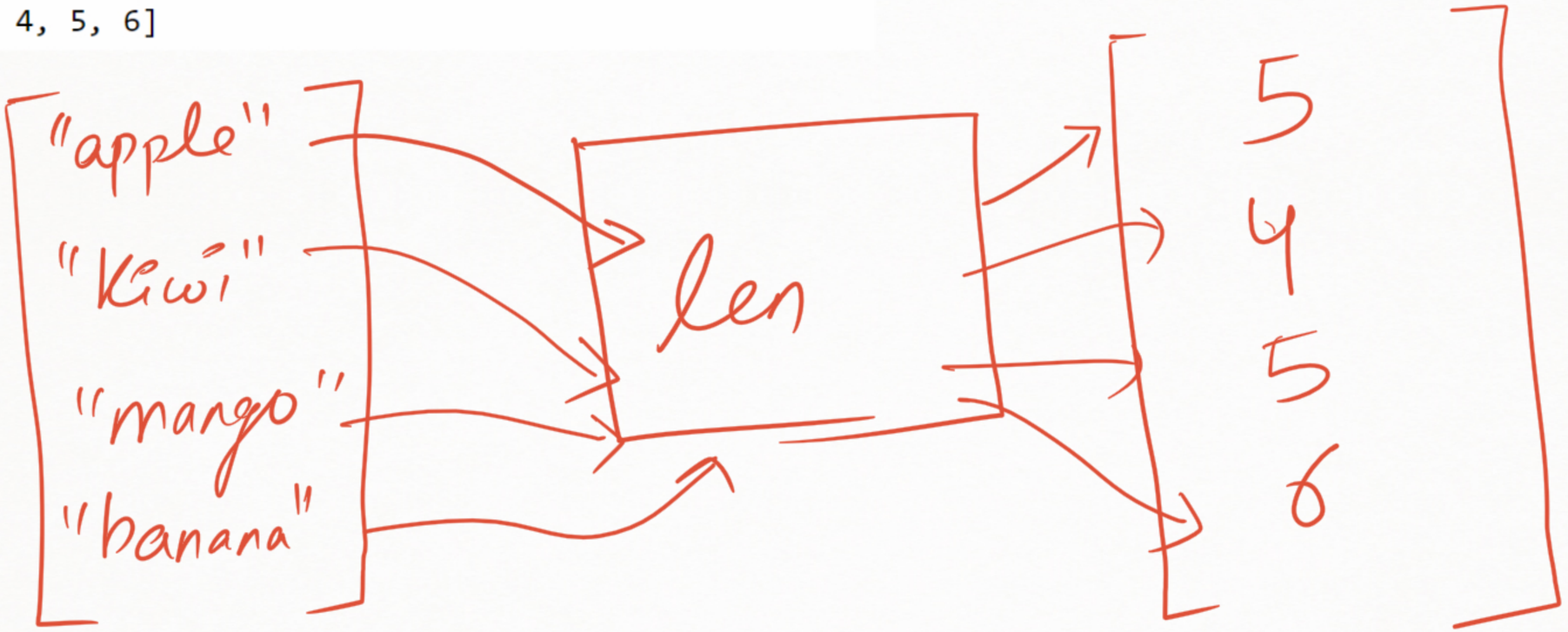
```
len('apple')
```

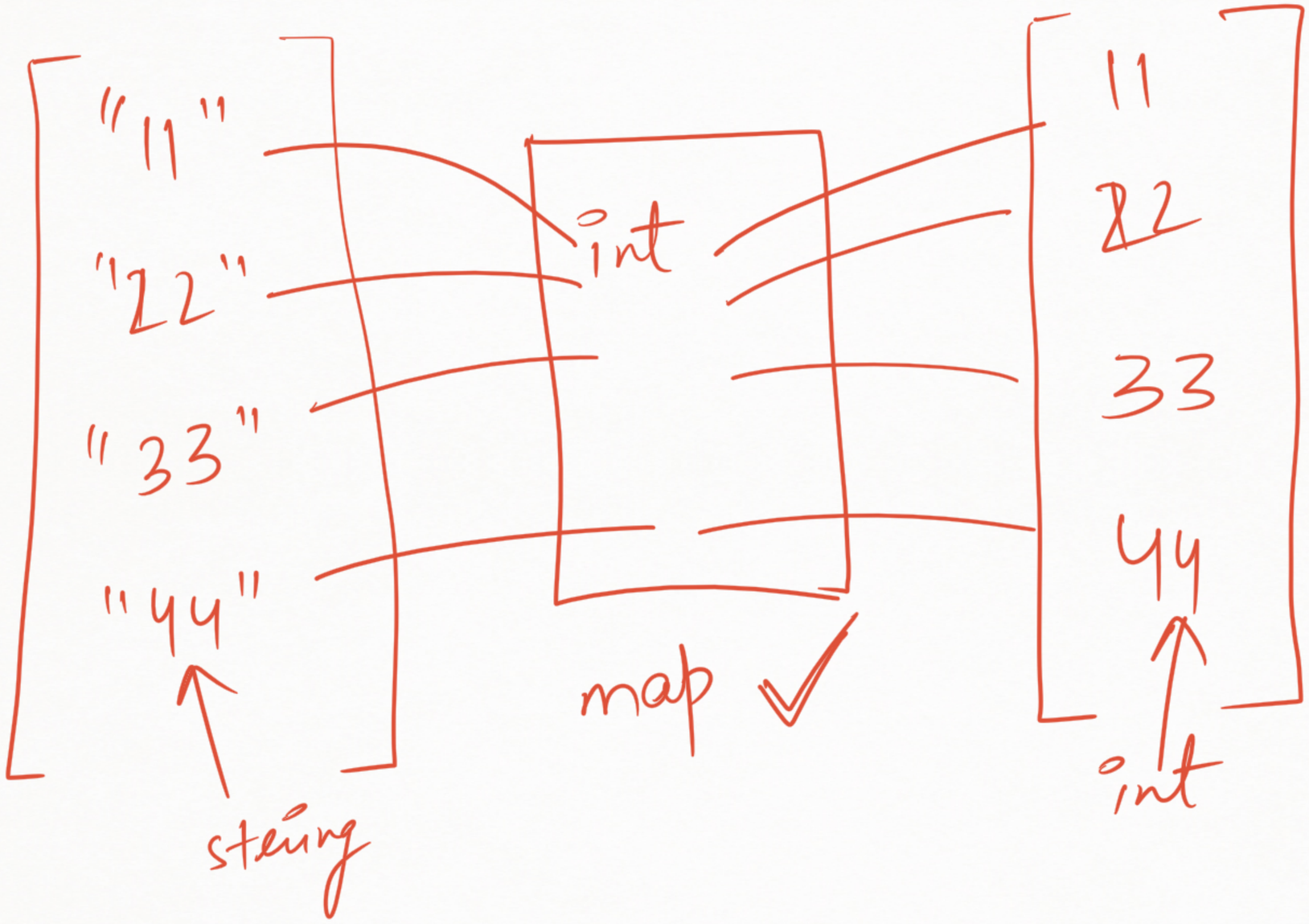
```
5
```

```
list_of_fruits = ['apple','kiwi','mango','banana']

list(map(len,list_of_fruits))
```

```
[5, 4, 5, 6]
```




"11"
"22"
"33"
"44"
string
int
map
11
22
33
44
int

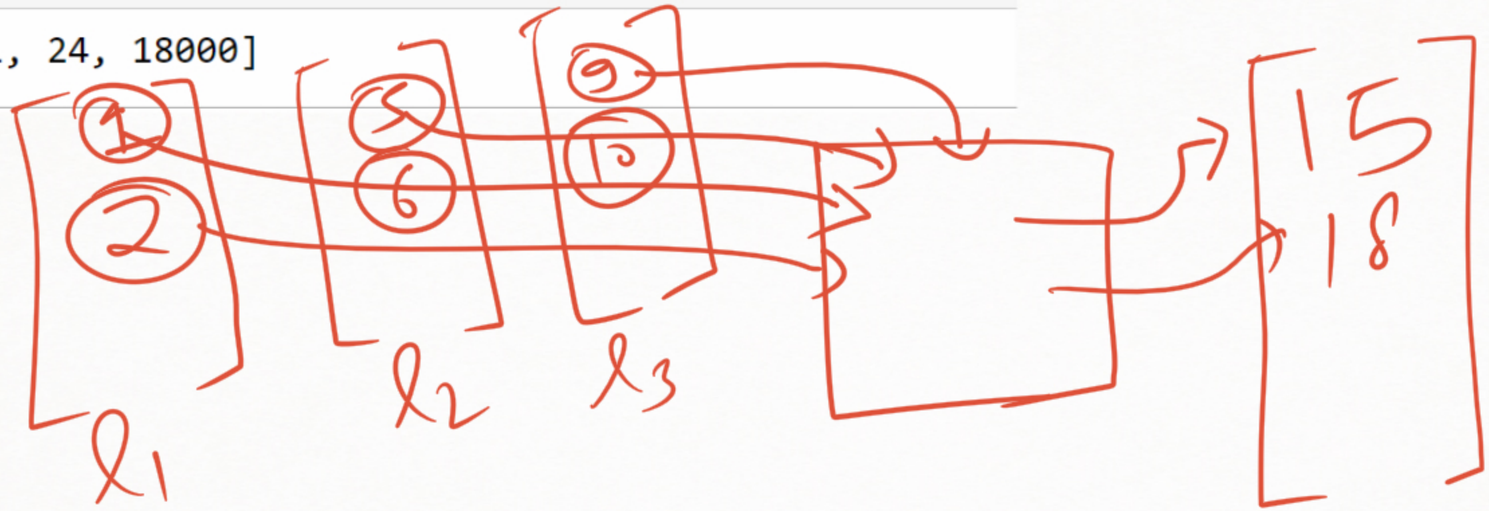
multiple arguments in a map function

```
l1 = [1,2,3,4,6000]
l2 = [5,6,7,8,8000]
l3 = [9,10,11,12,4000]

def add_utility(v1,v2,v3):
    return v1+v2+v3

print(list(map(add_utility,l1,l2,l3)))
```

```
[15, 18, 21, 24, 18000]
```



Filter

filter(fun_name,iterable_name)

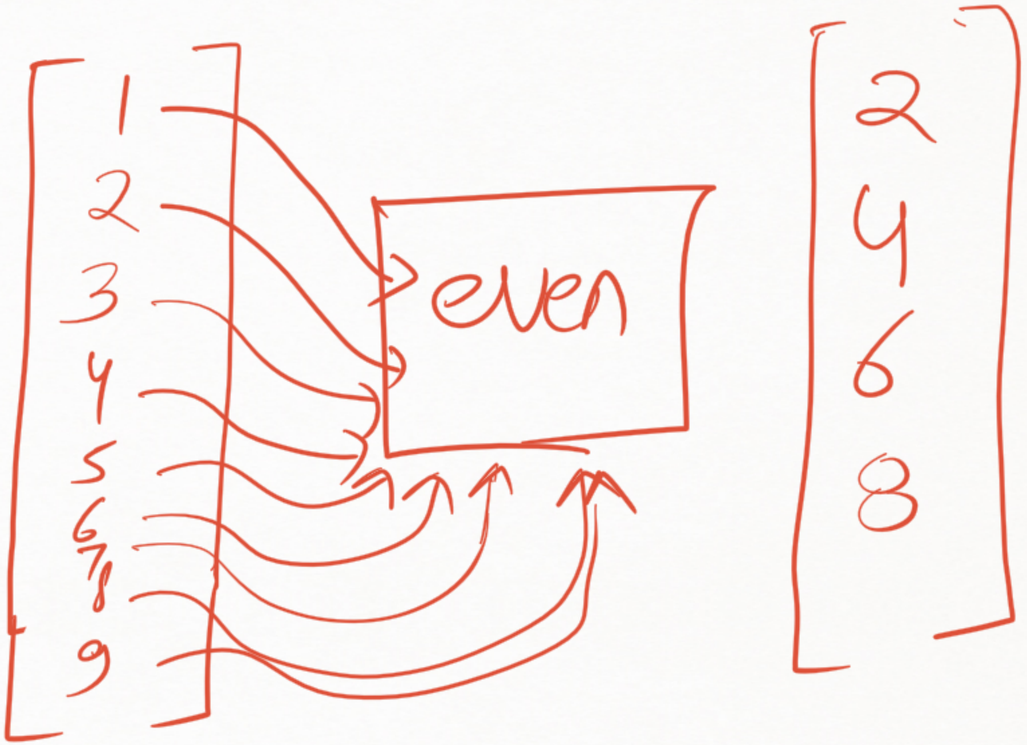
it returns elements from the iterable which are corresponging to true in fun.

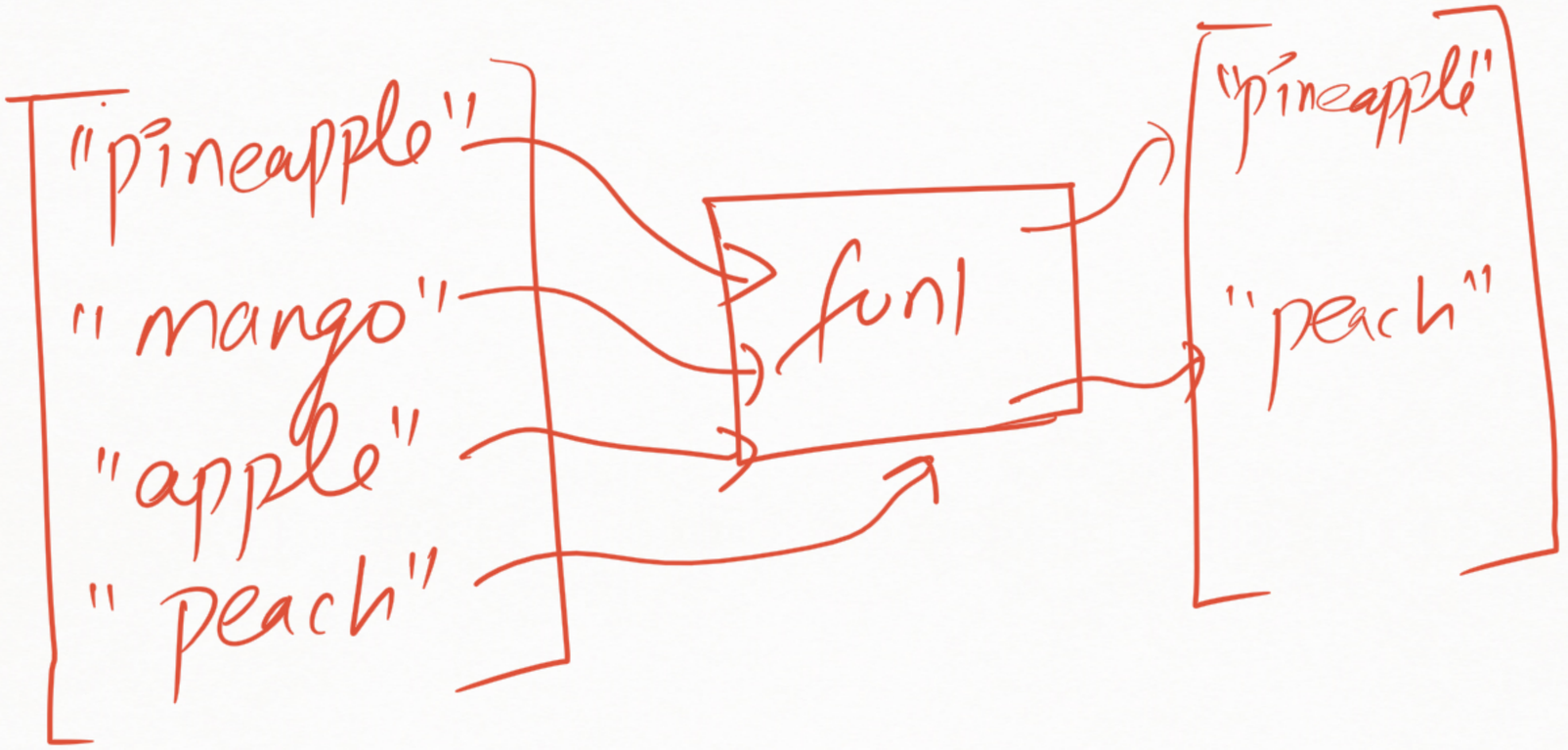
```
def even(n):
    if n%2 == 0:
        return True
    return False

filtered_obj = filter(even,[1,2,3,4,5,6,7,8,9])

final_list = list(filtered_obj)
print(final_list)
```

```
[2, 4, 6, 8]
```




"pineapple"
"mango"
"apple"
"peach"
fun1
"pineapple"
"peach"