

## Exercises of Chapter 8

1) Try This: Looping and if statements

### Part A)

```
x = [1, 3, 5, 0, -1, 3, -2]
```

```
for i in x:  
    if i < 0:  
        x.remove(i)  
print(x)
```

And the result would be:

```
[1, 3, 5, 0, 3]
```

### Part B)

```
c = 0
```

```
y = [[ 1, -1, 0 ], [ 2, 5, -9 ], [ -2, -3, 0 ]]
```

```
for a in y:  
    for b in a:  
        if b < 0:  
            c += 1  
print(c)
```

And the result would be:

```
4
```

### Part C:

```
if x < -5:  
    print("very low")  
  
elif x <= 0:  
    print("low")  
  
elif x <= 5:  
    print("high")  
  
else:  
    print("very high")
```

2) Try This: Comprehensions

### Part A)

```
x = [1, 3, 5, 0, -1, 3, -2]  
x_updated = [i for i in x if i >= 0]  
print(x_updated)
```

And the result would be:

```
[1, 3, 5, 0, 3]
```

### Part B)

```
odd_numbers = (x for x in range(100) if x % 2)  
for i in odd_numbers:  
    print(i))
```

### Part C)

```
cube_numbers = {x: x**3 for x in range(11, 16)}
print(cube_numbers)
```

And the result would be:

{11: 1331, 12: 1728, 13: 2197, 14: 2744, 15: 3375}

### 3) Quick Check: Booleans and Truthiness

1 : True

0 : False

-1: True

```
[0]: True
```

1 and 0: False

```
1 > 0 or []: True
```

#### 4) Lab: Refactor word\_count

```
line_count = 0
```

```
word_count = 0
```

```
char_count = 0
```

with open('word\_count.tst') as infile:

```
for line in infile:
```

```
line_count += 1
```

```
char_count += len(line)
```

```
words = line.split()
```

```
word_count += len(words
```

[illegible]