

```
In [1]: a = [2, 3, 4, 5, 6, 7]
```

```
In [9]: #Creating a new List with double the values in List a  
# recap to add value to a list we use .append
```

```
c = []  
for x in a:  
    c.append(x*2)  
print(c)
```

```
[4, 6, 8, 10, 12, 14]
```

```
In [10]: # Using List comprehension
```

```
d = [x*2 for x in a]  
print(d)
```

```
[4, 6, 8, 10, 12, 14]
```

```
In [18]: # Creating the following List  
# [1, 4, 9, 16, 25, 36]
```

```
#1st Method using the append function
```

```
b = []  
for x in range(1,7):  
    b.append(x**2)      # **2 == Square in python  
print(b)
```

```
[1, 4, 9, 16, 25, 36]
```

```
In [23]: # 2nd- Using List comprehension
```

```
f = [ x**2 for x in range(1, 7)]  
print(e)
```

```
[1, 4, 9, 16, 25, 36]
```

```
In [24]: # Creating  
# [36, 25, 16, 9, 4, 1]
```

```
f1 = [ (7-x)**2 for x in range(1, 7)]  
print(f1)
```

```
[36, 25, 16, 9, 4, 1]
```

```
In [26]: # CReating a List using (Range command) that is in decending order
```

```
print(list(range(6, 0, -1)))
```

```
[6, 5, 4, 3, 2, 1]
```

```
In [3]: f2 = [ x**2 for x in range(6, 0, -1)]  
        print(f2)
```

```
[36, 25, 16, 9, 4, 1]
```

```
In [ ]:
```