T3

January 23, 2023

[23]:
```
def headlast(L):
    L.append(L[0])
    L.pop(0)
    return L
L = [1,2,3,4]
print(headlast(L))
```

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

[15]:
```
def reverse(L):
    n = len(L)
    M = []
    for i in L[::-1]:
        M.append(L[i-1])
    return M
print(reverse([1,2,3,4]))
```

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

[49]:
```
from math import sqrt

def statistic(x):
    n = len(x)
    m = sum(x)*(1/n)
    sum1 = 0
    for i in x:
        sum1 += (i-m)**2
    s = sqrt((1/(n-1))*sum1)
    return m, s
x = [3,7,7,1]
print(statistic(x))
```

```
(4.5, 3.0)
```

[51]:
```
def insertion(L):
    i = 1
    while i < len(L):
        j = i
```

```
        while j>0 and L[j-1]>L[j]:
            L[j], L[j-1] = L[j-1], L[j]
            j -=1
        i+=1
    return L
L = [3,8,1,2,5,4]
print(insertion(L))
```

```
[1, 2, 3, 4, 5, 8]
```