**Q1.**

**Time of cost**

from random import \*

input1 = [5,3,8,6,1,9,2,7] 1

print(input1) 1

def shuff(L):

for i in range(len(L)): n

iRandom = randint(0,len(L)-1) n

temp = L[i] n

L[i] = L[iRandom] n

L[iRandom] = temp n

return L 1

print(shuff(input1)) 1

**Runtime bound:** 5n + 1

**Notation:** O(n)

**Q2.**

**Time of cost**

num = int(input("num: ")) 1

def trailingZero(t):

def fact(n):

if n == 1: 1

return n 1

else:

return n \* fact(n-1) n

count = 0 1

factAns = str(fact(t))[::-1] 1

for i in range(len(factAns)): n

if factAns[i] != "0": n

break 1

else:

count+=1 n

return count 1

print(trailingZero(num)) 1

**Runtime bound:** 2n + 2n? + 6

= 2n + 2mn + 6

= 2n + 2n + 6

= 4n + 6

**Complexity:** O(n)