**Q1.**

|  |  |
| --- | --- |
| Pseudocode | Time of cost |
| from random import \*  input1 = [5,3,8,6,1,9,2,7]  print(input1)    def shuff(L):  for i in range(len(L)):  iRandom = randint(0,len(L)-1)  temp = L[i]  L[i] = L[iRandom]  L[iRandom] = temp  return L  print(shuff(input1))  **Runtime bound:**  **Complexity:** | 1  1  n  n  n  n  n  1  1  = 1 + 1 + n + n + n + n + n + 1 + 1  = 5n + 1  O(n) |

**Q2.**

|  |  |
| --- | --- |
| Pseudocode | Time of cost |
| num = int(input("num: "))  def trailingZero(t):  def fact(n):  if n == 1:  return n  else:  return n \* fact(n-1)  count = 0  factAns = str(fact(t))[::-1]  for i in range(len(factAns)):  if factAns[i] != "0":  break  else:  count+=1  return count  print(trailingZero(num))  **Runtime bound:**  **Complexity:** | 1  1  1  n  1  1  n  n  1  n  1  1  = 2n + 2n? + 6  = 2n + 2mn + 6  = 2n + 2n + 6  = 4n + 6  O(n) |