Question - 1
Ticket Number

SCORE: **0 points**

Please enter your ticket number below:

Question - 2
Partial Sorted Array

SCORE: **5 points**

As a developer of your company, you are asked to implement a sorting method for processing business data.
If the input data are already sorted in ***most cases***, which one would you choose?

- (●) Insertion Sort
- ( ) Selection Sort
- ( ) Both have the same performance

Question - 3
Shell sort

SCORE: **5 points**

Regarding Shell sort: given the following list of numbers: [5, 16, 20, 12, 3, 8, 9, 17, 19, 7], which answer illustrates the contents of the list after all swapping is complete for a gap size of 3?

- ( ) [3, 7, 5, 8, 9, 12, 19, 16, 20, 17]
- (●) [5, 3, 8, 7, 16, 19, 9, 17, 20, 12]
- ( ) [5, 16, 20, 3, 8, 12, 9, 17, 20, 7]
- ( ) [3, 5, 7, 8, 9, 12, 16, 17, 19, 20]

Question - 4
Merge Sort

SCORE: **5 points**

What is the worst-case time complexity and auxiliary space complexity of Merge Sort?

- ( ) Time: 0(n logn) Space: 0(log n)
- (●) Time: 0(n logn) Space: 0(n)
- ( ) Time: 0(n^2) Space: 0(n)

Time: 0(n) Space: 0(n log n)

Question - 5

Implement Insertion Sort

SCORE: **25 points**

Implement the *sort* and *swap* methods for Insertion Sort.
Get all unit tests to pass.