### **Question 1 [10 Points]**

Imagine, you are developing a temperature monitoring system for a greenhouse. Write a Java program that takes N temperature readings from different sensors placed inside the greenhouse. Each temperature reading is a decimal value representing degrees Celsius. The program should display a summary containing the highest and lowest temperatures recorded and the average temperature across all readings.

| **Sample Input:** | **Sample Output:** |
| --- | --- |
| Enter N: 5  Enter temperature 1: 23.5  Enter temperature 2: 24.8  Enter temperature 3: 22.1  Enter temperature 4: 25.3  Enter temperature 5: 23.9 | Temperature range: 22.1 C - 25.3 C  Average temperature: 23.52 C |

### **Question 2 [5 Points]**

| | **1** | **public class trace{** | | --- | --- | | **2** | **public static void main(String[] args) {** | | **3** | **int i = 3, sum = 0, t = 0, k = 4, j = 1;** | | **4** | **boolean flag = true;** | | **5** | **while(j<5) {** | | **6** | **i++;** | | **7** | **if(flag == true) {** | | **8** | **sum += t % i + 2 - 3 \* k;** | | **9** | **System.out.println(sum--);** | | **10** | **}** | | **11** | **else{** | | **12** | **sum += t % i +3 - 5 \* k;** | | **13** | **System.out.println(sum++);** | | **14** | **}** | | **15** | **flag = !flag;** | | **16** | **j++;** | | **17** | **}** | | **18** | **System.out.println(flag);** | | **19** | **}** | | **20** | **}** | | | **Output** | | --- | |  | |  | |  | |  | |  | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

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