AQ3.4: Activity Question 4 - Not graded

**This assignment will not be graded and is only for practice.**

**Note : This activity is for your practice purpose only. Your score in this will not count towards the Qualifier Process.**

***1 point***

If A,B*A*,*B* and C*C* are three candidates who have obtained the three prizes, which of the following statements are true? It is a Multiple Select Question (MSQ).

All three are girls

At least one of them is a boy

All three feature in the list of the top three scorers in every subject

Each one of them should have come within the top three scorers in at least one subject

***1 point***

We have a student who has topped both maths and physics. Will this student get a prize?

Yes, she will certainly get a prize

No, she will certainly not get a prize

She has a good chance of getting a prize

**Answer the questions 3-5 using the information given:**

Let **max1**, **max2** and **max3** represent three variables that keep track of the maximum maths marks, such that:

**max1** > **max2** > **max3**  
  
The current values are as follows:  
  
 **max1** = 89, **max2** = 78, **max3** = 67

Let us assume that we always compare a new card first with **max1**, then with **max2** and finally with **max3**. A new card is now picked up from Pile-1 that has the maths marks as 95.

How many pairwise comparisons among the variables and cards are needed to update all the variables? Note that each pair consists of a card and one of the three variables.

***1 point***

What will be the value of **max1** + **max2** + **max3** after the update?

***1 point***

After making this update, another card comes up with 50 as the maths marks. How many pairwise comparisons are needed to update all variables? Note that each pair consists of a card and one of the three variables.

***1 point***

**Answer the questions 6-8 using the information given:**  
Now, repeat all parts of the previous question by changing the order of comparison with the three variables.  
  
That is, let us assume that we always compare a new card first with **max3**, then with **max2** and finally with **max1**.  
  
A new card is now picked up from Pile 1 that has the maths marks as 95.

How many pairwise comparisons among the variables and cards are needed to update all the variables? Note that each pair consists of a card and one of the three variables.

***1 point***

What will be the value of **max1** + **max2** + **max3** after the update?

***1 point***

After making this update, another card comes up with 50 as the maths marks. How many pairwise comparisons are needed to update all variables? Note that each pair consists of a card and one of the three variables.

***1 point***

***1 point***

In a variant of the “Scores” dataset, the maximum marks in maths, physics and chemistry are 95, 96 and 97 respectively. A student has scored 94 in all three subjects and has topped the class based on the total marks. Will she get a prize?

Yes, she will certainly get a prize

No, she will certainly not get a prize

She has a good chance of getting a prize