L3.2: Below average students in two iterations (non-nested) and grade allocation

**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***

In the “Scores” dataset, we had 15 students who had scored below the class average in a group of 30 students. If we generalize it to a group of N*N* students, how many students would be below the class average?

N22*N*​

N33*N*​

N44*N*​

Insufficient information

***1 point***

Consider the scenario discussed in the lecture, where 29 of the 30 students score 50 marks in maths while exactly one student has a score of 100. How many students have scored below the class average in maths for this special case?

15

20

29

30

***1 point***

Assume that we have computed the average maths marks and stored it in a variable called **avg**. Consider the following pseudocode:  
  
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AI-generated content may be incorrect.  
  
At the end of the execution of the above pseudocode, what does the variable **count** store?

It stores the number of students who have scored above average in maths

It stores the number of boys who have scored below average in maths

It stores the number of girls who have scored below average in maths

It stores the number of girls who have scored above average in maths

***1 point***

Let **Acount** represent a variable to count the number of students who have obtained “A” grade. The range for “A” grade is 84-97. If **X** represents a card, which of the following code blocks checks if the card belongs to this range and increments **Acount**?

if (**X .** Maths >= 84 and **X .** Maths <= 97) {  
 **Acount** = **Acount** + 1  
 }

if (**X .** Maths > 83 and **X** **.** Maths > 98) {  
 **Acount** = **Acount** + 1  
 }

if (**X .** Maths == 84 and **X .** Maths == 97) {  
    **Acount** = **Acount** + 1  
 }

if (**X .** Maths < 84 and **X .** Maths > 97) {  
    **Acount** = **Acount** + 1  
 }

***1 point***

Consider a variant of the “Scores” dataset with the following minimum and maximum values: **min** = 50 and **max** = 99. We decide to offer 5 grades - A,B,C,D,E*A*,*B*,*C*,*D*,*E* - where A*A* is the highest and E*E* is the lowest. What would be the range of scores associated with a D*D* grade? Assume that the interval size is the same for all grades.

60 − 69

60 − 70

59 − 69

61 − 70