Exam

ZPRAC-16-17-Lab4

[50 points]

Bhuvesh is a very lazy person. He has to grade the minor quizzes of his section but all he wants to do is eat and sleep. But he is very smart. He thinks he has already taught his students enough programming so that they can write programs to check the answer sheets. Harpreet, being egoistic doesn't agree that Bhuvesh is a better teacher. So, Shivam proposes a test to find out how good the programmers of each section are. B7, B8 and B9 will now compete to decide who is the better teacher. They will write programs to check the answer sheets.

Question starts:
You are given the answer sheets of 5 students with 3 questions each as follows:
INPUT Format:
Roll_number_1 (integer)
Q1
Q2
Q3
Roll_number_2 (integer)
Q1
Q2
Q3
Roll_number_3 (integer)
.
.
.
Roll_number_5 (integer)
Q1
Q2
Q3

Each question (Q1, Q2, Q3) is in the format:
(integer1)(character1)(integer2)(character2)(integer3)(character3)

For a question to be proper:
(1) character1 must be one of '+','-','*'
(2) character2 must be '='
(2) character3 must be ';'

If the question is not proper give 0 marks for that question.
If it is proper check if (integer1)(operator)(integer2)=(integer3) where (operator) is just character1. If yes, give 1 mark, else 0.

Example:
13203 // roll number
3*5=15; // correct (1)
3*4=15; // incorrect (0)
3+4=7m // improper (0)

// similarly there will be 4 more roll numbers each followed by 3 questions.

You have to output the marks obtained by each student (roll number) and also the minimum, maximum, and average marks (upto two decimal places) of all 5 students.
Note: Use float for average marks.

OUTPUT Format:
1. Roll_number_1 - marks_1
2. Roll_number_2 - marks_2
.
.
.
5. Roll_number_5 - marks_5
MINIMUM MARKS - (min_marks)
MAXIMUM MARKS - (max_marks)
AVERAGE MARKS - (avg_marks)

Example:
1. 13203 - 2
2. 13204 - 1
.
.
.
5. 1345235 - 2
MINIMUM MARKS - 1
MAXIMUM MARKS - 10
AVERAGE MARKS - 5.72

Interesting Fact - This is basically what a compiler does. It first checks for correct syntax and then tries to understand the meaning.