Practice Arena

Practice problems aimed to improve your coding skills.

- PRACTICE-02_SCAN-PRINT
- PRACTICE-03_TYPES
- LAB-PRAC-02_SCAN-PRINT
- LAB-PRAC-01
- PRACTICE-04_COND
- BONUS-PRAC-02
- LAB-PRAC-03_TYPES
- PRACTICE-05_COND-LOOPS
- LAB-PRAC-04_COND
  - Trouble with Triangles
  - Ms- Mathematica
  - Pollution Problem
  - In or Out
  - Rick-s Number
  - Its Tax Time
  - The Toppers
  - Isotonic Regression
  - Super Leap Years
  - Make Room for Rectangles
  - Quadratic Quandry Revisited
  - Grade Grab
- LAB-PRAC-05_CONDLOOPS
- PRACTICE-07_LOOPS-ARR
- LAB-PRAC-06_LOOPS
- LAB-PRAC-07_LOOPS-ARR
- LABEXAM-PRAC-01_MIDSEM
- PRACTICE-09_PTR-MAT
- LAB-PRAC-08_ARR-STR
- PRACTICE-10_MAT-FUN
- LAB-PRAC-09_PTR-MAT
- LAB-PRAC-10_MAT-FUN
- PRACTICE-11_FUN-PTR
- LAB-PRAC-11_FUN-PTR
- LAB-PRAC-12_FUN-STRUC
- LABEXAM-PRAC-02_ENDSEM
- LAB-PRAC-13_STRUC-NUM
- LAB-PRAC-14_SORT-MISC

Grade Grab

LAB-PRAC-04_COND

Grade Grab [20 marks]

Problem Statement
Your instructor teaches another large course called CS771: Introduction to Machine Learning. Help him perform grading for that course. You will be given the total marks scored by a student out of 100, say M, the percentage of lectures the student has attended, say A, and a attendance weightage out of 100, say W. **All numbers will be given as an integer**.

The grade of a student is calculated by using their *effective marks*. If the marks of a student M are **greater than or equal to 50** then their effective marks is M itself. Otherwise, the effective marks is calculated as the **integer portion** of the following quantity (M + W% of A) i.e. by discarding digits after the decimal place. For example, if M = 33, A = 50 and W = 50 then effective marks will be (33 + 50% of 50) = (33 + 25) = 58. If the above calculation gives effective marks as **greater than 100**, then the effective marks is set to 100.

Given the effective marks of a student, grading is done using the following chart.

Marks	**Grade**
0-49	D
50-69	C
70-89	B
90-100	A

You have to give your output in four lines as shown below

1. In the first line, output the effective marks of the student **as an integer**
2. In the second line, print the grade the student got
3. In the third line, print the grade the student would have got if their marks were the same but attendance was 0%

Caution

1. Be careful about extra/missing lines and extra/missing spaces.
2. Be careful that in the third line, the case may be such that the effective marks of the student changes due to change in attendance.
3. You may be tempted to use copy-paste while coding this question. Be careful while doing so to avoid making errors.

INPUT:

M A W

OUTPUT:
EffMarks
Grade
GradeZeroAttendance

EXAMPLE:
INPUT
83 50 50

OUTPUT:
83
B
B

Grading Scheme:
Total marks: **[20 Points]**

There will be partial grading in this question. There are three lines in your output. Printing each line correctly, in the correct order, carries partial weightage. The first line is worth 20% weightage and the second and third lines are worth 40% weightage each. Each visible test case is worth 2 points and each hidden test case is worth 4 points. There are 2 visible and 4 hidden test cases.

Please remember, however, that when you press Submit/Evaluate, you will get a green bar only if all parts of your answer are correct. Thus, if your answer is only partly correct, Prutor will say that you have not passed that test case completely, but when we do autograding afterwards, you will get partial marks.

Start Solving! (/editor/practice/6061)