Problem 4: Make The Grade

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Problem Background

Everyone's favorite type of test is the multiple choice test. Even if you have no idea what the answer is, a guess still has some chance of being correct! Unfortunately it's still rather a chore for your teachers to go through and score everyone's test. Let's write a program to help them out… maybe it'll be worth extra credit!

Problem Description

Your program will be given the list of correct answers to a multiple-choice test (no cheating!) followed by a list of responses from students. Your program must determine each student's grade by comparing their answers against the correct answers. Each question is worth an equal number of points. Since this is a multiple-choice test, the answer to each question will be represented by an uppercase letter: A, B, C, or D. Once all the correct answers are tallied, you'll need to print their final score as a percentage along with their letter grade, as follows:

- A - 90% <= Grade
- B - 80% <= Grade < 90%
- C - 70% <= Grade < 80%
- D - 60% <= Grade < 70%
- F - Grade < 60%

Sample Input

The first line of your program's input, **received from the standard input channel**, will contain a positive integer representing the number of test cases. Each test case will include the following:

- A line containing two values, separated by spaces:
    - A positive integer, **X**, representing the number of students in the class
    - A string of uppercase letters (including A, B, C, and/or D), representing the correct answers to the test. Each character represents a different question.
- **X** lines, containing two values, separated by spaces:
    - A string of characters, representing the student's name. Student names will not contain spaces.
    - A string of uppercase letters (including A, B, C, and/or D), representing the student's answers to the test. This string will contain the same number of characters as the answer key.

```
1
3 ABCDDCBA
Bob ABCDDDDD
Sarah ABCDDCCC
Kris AACDDCBA
```

Sample Output

For each test case, your program must print one line for each student in the order presented, containing the following information, separated by spaces:

- The student's name
- The student's score, as a percentage rounded to one decimal point (include any trailing zeroes)
- The student's letter grade

```
Bob 62.5% D
Sarah 75.0% C
Kris 87.5% B
```