Problem 48: Batter Up!

Difficulty: Easy

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Problem Background

In baseball statistics, the slugging percentage (SLG) is a popular measure of the power of a hitter.

Problem Description

You will be given a list of players and their at-bats for a single game. You will need to compute each player's slugging percentage. For this exercise, no player will be hit by a pitch.

The slugging percentage is found by counting all the singles, doubles, triples, and home runs in a given game and applying a set weight to each achievement (home runs are worth more than singles), then dividing that number by the total number of at-bats in that game as shown here.

$$SLG = \frac{(1 \times Singles) + (2 \times Doubles) + (3 \times Triples) + (4 \times Home\ Runs)}{Total\ At\ Bats}$$

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:

• A single line of input per player consisting of the batter's name, a colon, and some number of at-bats separated by commas.

A player's at bats can be any of the following:

BB means the player was walked by the pitcher and does NOT count as an at-bat.

- K is an at-bat where the player struck out and did not reach a base.
- 1B is an at-bat where the player hit a single.
- 2B is an at-bat where the player hit a double.
- 3B is an at-bat where the player hit a triple.
- HR is an at-bat where the player hit a home run.

Please note that not every player in the game has the same number of at bats. If a player has no atbats, then their slugging percentage should be 0

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Moreland:K,2B,1B,HR Andrus:BB,BB,2B,K Chirinos:1B,1B,3B

Odor:1B,K,3B

Sample Output

For each test case, your program should output the player's name, as it appeared in the input, an equal sign and then their slugging percentage rounded to 3 decimal places, no spaces.

Moreland=1.750 Andrus=1.000 Chirinos=1.667 Odor=1.333