**10. Simulator Accuracy**

# Program Name: Simulator.java Input File: simulator.dat

Felix is trying to build his own simulator to predict how a stock will do over a certain time period. He creates a program to that predicts what a stock’s price will be during the course of year. He wants to test the accuracy of his model, and he needs your help doing this. Given three trials simulated trials and a real stock price after a period of time, output the accuracy of his model in the form of a percentage.

**Input**

The first line of input will contain an integer n which is the number of test cases. The first three numbers in any following line are the three simulated trials. The next value is the price of the stock after a time period.

**Output**

The output should be the percent error between the three data trials and the actual stock price, formatted as a percentage with two decimal places. The equation for percent error is as follows:

**Example Input File**

4

110.89 111.61 111.98 129.30

209.69 210.68 212.69 257.24

188.01 187.07 188.54 234.01

1106.79 1112.62 1101.08 1291.01

**Example Output to Screen**

13.77%

17.97%

19.72%

14.27%