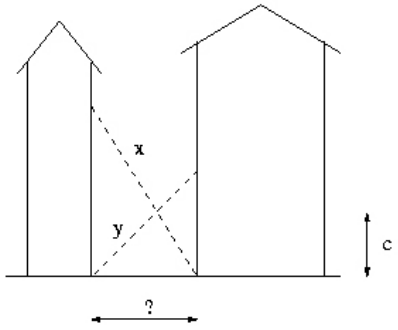
1062 – Crossed Ladders

A narrow street is lined with tall buildings. An **x** foot long ladder is rested at the base of the building on the right side of the street and leans on the building on the left side. A **y** foot long ladder is rested at the base of the building on the left side of the street and leans on the building on the right side. The point where the two ladders cross is exactly **c** feet from the ground. How wide is the street?



Input

Input starts with an integer **T (≤ 10)**, denoting the number of test cases.

Each test case contains three positive floating point numbers giving the values of **x**, **y**, and **c**.

Output

For each case, output the case number and the width of the street in feet. Errors less than 10^{-6} will be ignored.

Sample Input	Output for Sample Input
4 30 40 10 12.619429 8.163332 3 10 10 3 10 10 1	Case 1: 26.0328775442 Case 2: 6.99999923 Case 3: 8 Case 4: 9.797958971