

Problem 8: Look, Ma! No Ruler!

In this problem you are given a piece of graph paper with one-inch squares. The paper is W inches wide and H inches tall, and you want to identify two points that are close as possible to D inches apart, where D is a real number. Naturally we can only accurately identify distances between the points formed by the intersections of the horizontal and vertical lines on the graph paper. Assume each point is identified by a pair of integers (X, Y) , where X is the horizontal distance (in inches) to the right of the left edge of the paper and Y is the vertical distance down from the top edge of the paper. Thus a page that is 8 inches wide and 10 inches tall will have the point $(0,0)$ in the upper left corner and the point $(8,10)$ in the lower right corner. We assume that all distances will be measured from the upper left corner, $(0,0)$. Your task is to find the point (X, Y) that is as close as possible to D inches from $(0,0)$. If there are multiple points meeting this requirement, pick the point that has the smallest possible X value.

Input

There will be multiple cases to consider, numbered sequentially starting with 1. For each case there will be a single line of input containing W , H , and D separated by whitespace. Each of W and H will be no larger than 1000. A line containing three zeroes will follow the input for the last case.

Output

For each case display the case number and the integers X and Y in the exact format shown in the samples below. Display a blank line after the output for each case.

Sample Input

```
8 10 1.5
12 25 7.7
0 0 0
```

Output for the Sample Input

```
Case 1: (1,1)

Case 2: (3,7)
```