

Introduction

In the era of social networking, almost everybody is connected to the world using one of the following apps: WhatsApp™, Line™ and so on. But have you thought about how long it takes your messages to travel from your cell phone to any of your friends'?

You have to create a program that calculates the time it takes a message to travel between you and your friends. In order to simplify the calculus, we can assume that we know the distance and the mean speed that the information travels.

You need to write a program to calculate the time to send a message to all your friends and order the result from the smallest to the longest time.

Input

The input will be a sequence of friends with their distance and the mean speed, ending with a dot ('.').

Peter 20 1

Jamie 6 3

Eli 20 4

Anna 30 3

Output

The output of the program is the list of friends and the time it takes for the message to arrive to their cell, ordered from shortest to longest.

Jamie 2 Eli 5 Anna 10 Peter 20

