VII BXComp

7º Campeonato de Programação para Calouros do Curso de Sistemas de Informação 2017

6ª Etapa – Desafio 3

The Sandwich Problem

One of the criteria for a competition at EACH to be considered successful is ensuring that competitors always have their bellies full. Taking this into account, the staff team in charge of organizing the event decided to choose one of its members (John Smith) to be responsible to deliver sandwiches to the competition with a grocery cart.

Regardless, this task was very tiring as it involved carrying a large number of sandwiches. To compensate for it, the staff team allowed John Smith to eat one of the sandwiches **of the cart** every 100 meters traveled. Furthermore, for each of those 100 meters traveled, checkpoints were created so that John could store as many of the sandwiches currently being transported in the cart **as desired**.

Task

In order to figure out whether John Smith has eaten more sandwiches than he was supposed to, the staff team wants you to devise a program that determines the maximum number of sandwiches that may be delivered to the competition. You may assume that John Smith's journey begins at the supplier's location and a sandwich is eaten whenever possible.

Input

The input consists of several different instances and ends with the command EOF (end of file). Each instance is composed of a single line with three integers **S**, **D**, and **C**, this three integers are always bigger than **0** and indicate, respectively, the quantity of sandwiches ordered, the distance between the supplier's location and the

local of the event in meters (always divisible by **100**), and how many sandwiches fit in the cart.

Output

For each instance, print out the maximum number of sandwiches that may be delivered - as long as such quantity turns out to be greater than 0; otherwise print “impossible”.

Input Samples

```
32 1000 20
100 10000 20
31 300 5
42 500 20
```

Output Samples

```
14
impossible
7
25
```