Help Ayushman!

As Ayushman is now bored of getting top 3 in the leaderboards constantly, he asks his friend for some real challenging problem.
His friend, who is very fond of maths, gives him the following problem:
A pharmacist sells two types of masks with prices 'x' and 'y' respectively.
Owner of the store wants to know the minimum possible amount 'z' such that any amount greater than or equal to 'z' can be earned by the owner by selling any number of the masks in any order. If it's impossible to do with the given x and y, print "IMPOSSIBLE" in that case.
You being Ayushman's good friend, help him solve this.

For more clear explanation, consider the following test case.

Example -
1) Let x be 4 and y be 5
Amount 1, 2, 3 Not Possible in any way.
4 = 4*1 + 5*0
5 = 4*0 + 5*1
6, 7 Not Possible in any way.
8 = 4*2 + 5*0
9 = 4*1 + 5*1
10 = 4*0 + 5*2
11 Not Possible in any way.
12 = 4*3 + 5*0
13 = 4*2 + 5*1
14 = 4*1 + 5*2
15 = 4*3 + 3*1
16 = 4*4 + 5*0
17 = 4*3 + 5*1
.
.
So it can be seen that, from 12 onwards, we can represent any amount by selling any number of Masks.
Therefore our answer for this case is 12.

2) Let x be 22 and y be 4
Answer for this case is "IMPOSSIBLE"

CONSTRAINTS -
1 <= T <= 10
1 <= x <= 1e8
1 <= y <= 1e8

INPUT FORMAT -
First line contains the integer T, the number of test cases.
Next each T lines contains two space separated positive integers 'x' and 'y' respectively.

OUTPUT FORMAT -
Print the required amount 'z' if it's possible to do so. Otherwise print "IMPOSSIBLE"

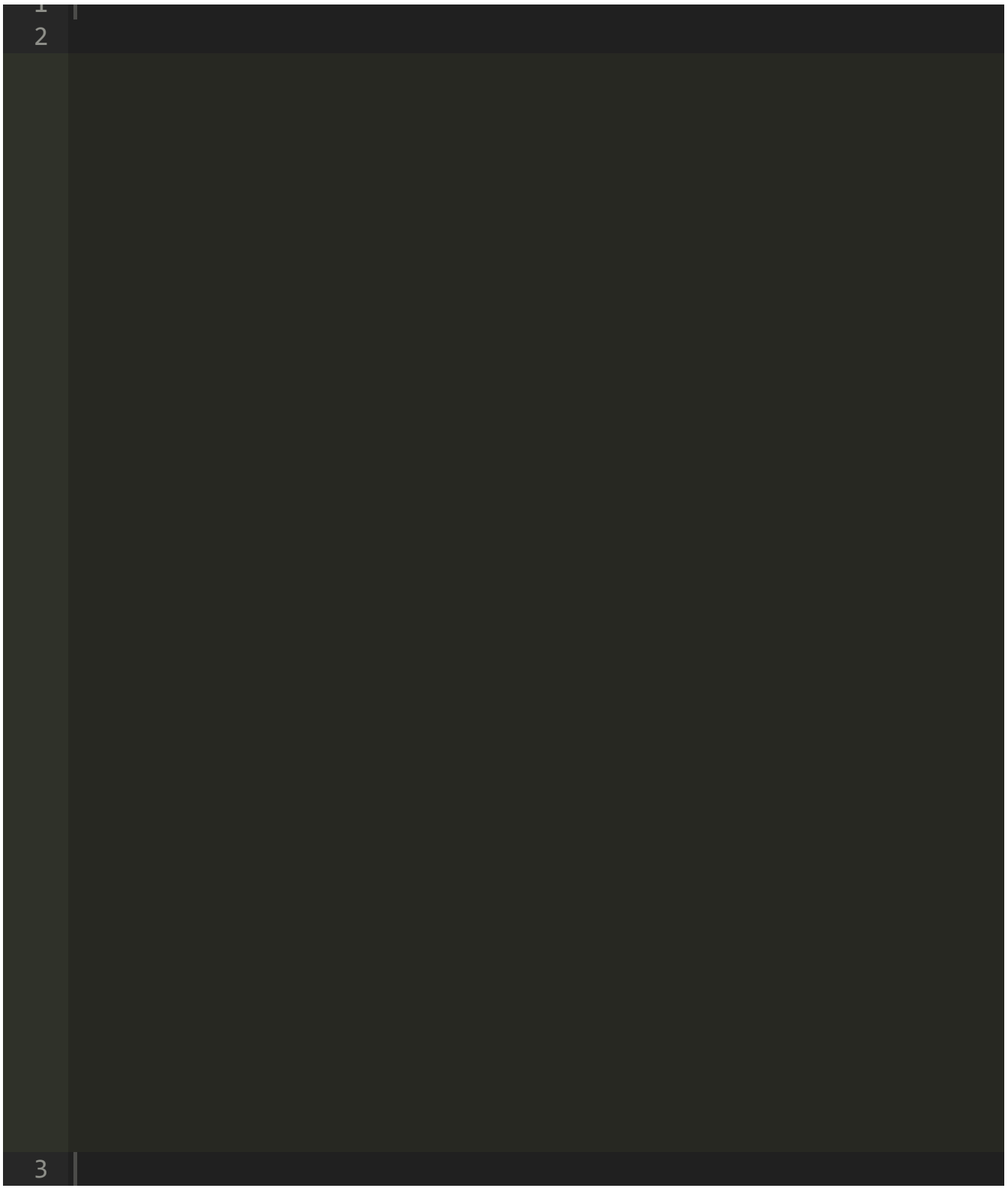
Problem Statistics

Author: Ayushman Chahar

Solved By: 14

View leaderboard

Theme: Terminal Language Python Font size: 18



Use custom I/O

Run Code | Save Code | Pause Test

Status: