Problem B: The Zoo

Time limit: 1s; Memory limit: 250 MB

Today, Khoa go to the big zoo in Danang city. Khoa is very interested with tigers and ostriches. He asked a zookeeper how many tigers and ostriches in the zoo. The zookeeper answered, "Among the animals there are n eyes and m feet."

How many of each kind of animal were there?

Input

The input contains two positive integers n ($1 \le n \le 10^{15}$) and m ($1 \le m \le 10^{15}$).

Output

The output contains the number of tigers and ostriches. If there is no solution, output the only word "IMPOSSIBLE"

Examples

Input	Output
6 10	2 1
10 8	IMPOSSIBLE