Mirko has given up on the difficult coach job and switched to food tasting instead. Having skipped breakfast like a professional connoisseur, he is visiting a Croatian cured meat festival. The most renowned cook at the festival, Marijan Bajs, has prepared **N** equal sausages which need to be distributed to **M** tasters such that each taster gets a precisely equal amount. He will use his trusted knife to cut them into pieces.

In order to elegantly divide the sausages, the **number of cuts** splitting individual sausages must be **as small as possible**. For instance, if there are two sausages and six tasters (the first test case below), it is sufficient to split each sausage into three equal parts, making a total of four cuts. On the other hand, if there are three sausages and four tasters (the second test case below), one possibility is cutting off three quarters of each sausage. Those larger parts will each go to one of the tasrers, while the fourth taster will get the three smaller pieces (quarters) left over.

Mirko wants to try the famous sausages, so he volunteered to help Bajs. Help them calculate the minimum total number of cuts needed to carry out the desired division.

INPUT

The first and only line of input contains two positive integers, **N** and **M** ($1 \leq \mathbf{N}, \mathbf{M} \leq 100$), the number of sausages and tasters, respectively.

OUTPUT

The first and only line of output must contain the required minimum number of cuts.

SAMPLE TESTS

input	**input**	**input**
2 6	3 4	6 2
output	**output**	**output**
4	3	0