

You are given 2 integers X and Y and you need to transform the integer X to integer Y using only valid moves.

A valid move can be of the following types -

```
Reversing the current integer. If current integer has trailing zeroes then on rever-sing the integer leading zeroes gets eliminated.
```

```
Divide the current integer by 10.(Floor Division).
```

You have to print the minimum number of moves that need to be performed to transform integer X to integer Y using only valid moves and if it is not possible to transform integer X to integer Y then print “-1”.

**Input Format**

A single line that contains 2 integers representing the values of X and Y respectively..

**Constraints**

$1 \leq X, Y \leq 10^9$

**Output Format**

A single line that represents the answer.

**Sample Input 0**

```
100 1
```

**Sample Output 0**

```
1
```