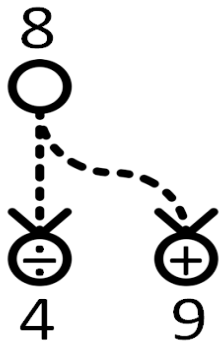


## Dividing by Two



### Description

You are given two integers, A and B. You want to transform A to B by performing a sequence of operations. You can only perform the following operations:

- Divide A by two, but only if A is even.
- Add one to A.

What is the minimum number of operations you need to transform A into B?

### Input

The input will be a single line containing two integers A and B with  $1 \leq A, B \leq 10^9$ .

### Output

On a single line write the minimum number of operations required as an integer.

### Sample:

| No. | Sample Input | Sample Output |
|-----|--------------|---------------|
| 1   | 103 27       | 4             |
| 2   | 3 8          | 5             |