

Maximizing XOR



Given two integers, l and r , find the maximal value of $a \text{ xor } b$, where a and b satisfy the following condition:

$$l \leq a \leq b \leq r$$

Input Format

The first line contains the integer l .

The second line contains the integer r .

Constraints

$$1 \leq l \leq r \leq 10^3$$

Output Format

The maximal value of the possible xor operations.

Sample Input 0

```
10
15
```

Sample Output 0

```
7
```

Explanation 0

The input tells us that $l = 10$ and $r = 15$. All the pairs which comply to above condition are the following:

$$10 \oplus 10 = 0$$

$$10 \oplus 11 = 1$$

$$10 \oplus 12 = 6$$

$$10 \oplus 13 = 7$$

$$10 \oplus 14 = 4$$

$$10 \oplus 15 = 5$$

$$11 \oplus 11 = 0$$

$$11 \oplus 12 = 7$$

$$11 \oplus 13 = 6$$

$$11 \oplus 14 = 5$$

$$11 \oplus 15 = 4$$

$$12 \oplus 12 = 0$$

$$12 \oplus 13 = 1$$

$$12 \oplus 14 = 2$$

$$12 \oplus 15 = 3$$

$$13 \oplus 13 = 0$$

$$13 \oplus 14 = 3$$

$$13 \oplus 15 = 2$$

$$14 \oplus 14 = 0$$

$$14 \oplus 15 = 1$$

$$15 \oplus 15 = 0$$

Here two pairs $(10, 13)$ and $(11, 12)$ have maximum xor value 7, and this is the answer.