# **Maximizing XOR**

Given two integers, \$L\$ and \$R\$, find the maximal value of \$A\$ xor \$B\$, where \$A\$ and \$B\$ satisfy the following condition:

\$L \le A \le B \le R\$

## **Input Format**

The input contains two lines; \$L\$ is present in the first line and \$R\$ in the second line.

#### **Constraints**

\$1 \le L \le R \le 10\$3

# **Output Format**

The maximal value as mentioned in the problem statement.

# Sample Input

```
10
15
```

## **Sample Output**

7

# **Explanation**

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

```
10 \cdot 10 = 0
```

 $10 \cdot 11 = 1$ 

 $10 \cdot 12 = 6$ 

 $10 \setminus 13 = 7$ 

 $10 \setminus 14 = 4$ 

 $10 \cdot 15 = 5$ 

 $11 \cdot 11 = 0$ 

 $11 \cdot 12 = 7$ 

 $11 \cdot 13 = 6$ 

 $11 \cdot 14 = 5$ 

 $11 \cdot 15 = 4$ 

 $12 \cdot 12 = 0$  $12 \cdot 13 = 1$ 

+===

14 = 2

 $12 \cdot 15 = 3$ 

 $13 \cdot 13 = 0$  $13 \cdot 14 = 3$ 

 $13 \cdot 15 = 2$ 

\$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.				