Problem F3201 Integer and Bit

You know that integers are stored in 32-bit binary form for Python. For example the nonnegative integer 3 is represented as "...00000011", with a lot of leading zeros omitted. Usually we call the right most bit the 0-th bit and the second right most bit the 1-th bit and so on. In this way we could say that, for integer 3 the 0-th and 1-th bits are on, and the rest bits are off. Given a nonnegative integer a, check if the n-th bit is on.

Input

The input consist of 2 space separated integer $a(0 \le a \le 127)$ $n(0 \le n \le 6)$.

Output

Output "True" (without quote) if the n-th bit of a is on, otherwise "False" (without quote).

Sample Input 1

3 1

Sample Output 1

True

Sample Input 2

6 0

Sample Output 2

False

Explanation of Sample Data

The binary representation of integer 3 is "...00000011", the 1-th bit is on. The binary representation of integer 6 is "...00000110", the 0-th bit is off.