[B - Reset the significant bits](https://vjudge.net/problem/EOlymp-5318)

Given integer **а** and positive integer **k**. Find the number that contains only the last **k** bits of **а** (i.e. reset all bits of **а** except the last **k** bits).

**Input**

One line contains two numbers **a** and **k** (**0** ≤ **a** ≤ 109).

**Output**

Print the number **a** with reseted bits except the last **k**.

**Example 1**

Input example #1

5 1

Output example #1

1

### **Creating A Mask**

If we want to keep only right most 3 bits of an 8-bit binary number N.  We should do bitwise AND of N with a mask 0000 0111 so that only right most 3 bits are preserved and rest all become 0.

To create a mask whose right most 3 bits are set, easiest way is to (1 << 3) - 1.  because 2 power 3 is 8, which in binary form is 0000 1000 and subtracting 1 from it makes it 0000 0111

So, in one line, answer is ( n & **(1LL<<k)-1) )**

#include <iostream>

using namespace *std*;

int main() {

int a, k; *cin* >> a >> k;

int mask = 0XFFFFFFFF;

mask = mask << k;

mask = ~mask;

*cout* << (a&mask) << "\n";

return 0;

}