To check whether a number y is a multiple of the other number x or not, C provides a useful arithmetic operator mod (%). If x is a power of 2, then the process can be simplified by simply checking the lowest p bits. Such process can be done by using bitwise operator. Give a program to check if y is a multiple of x, where x is a power of 2.

Requirement: use bitwise operators (mod % is prohibited in this program)

Input

The input has several cases and ends with -1. Each case contains two integers p and y.

Output

For each case, if y is a multiple of $x = 2^p$, print y is a multiple of x; otherwise, print y is not a multiple of x.

Sample Input

2 36
4 496
13 25547

Sample Output

36 is a multiple of 4
496 is a multiple of 16
25547 is not a multiple of 8192