**Check if a number is power of another number**

[maths](http://www.practice.geeksforgeeks.org/tag-page.php?tag=maths&isCmp=0)

Given two positive numbers x and y, check if y is a power of x or not.

**Input:**  
First line contains an integer, the number of test cases 'T'. Each test case should contain two positive numbers x and y.

**Output:**  
Print 1 if y is a power of x, else print 0.

**Constraints:**  
1<=T<=30  
1<=a<=1000  
1<=b<=100000000

**Example:**  
**Input:**  
2  
2 8  
1 3

**Output:**  
1  
0

**Explanation:**8 is a power of 2, but 3 is not a power of 1.

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=615>

#include <iostream>

#include <stdio.h>

#define ll long long int

using namespace std;

int main() {

int t;

scanf("%d",&t);

while(t--) {

ll x,y;

scanf("%lld %lld", &x,&y);

bool ispower = false;

ll prod = 1;

if( y == 1) {

printf("1\n");

}else if(x == 1) {

printf("0\n");

} else {

while(true) {

prod \*= x;

if(prod == y) {

ispower = true;

break;

}

if(prod > y) {

break;

}

}

if(ispower) {

printf("1\n");

} else {

printf("0\n");

}

}

}

return 0;

}