**XOR Pair**

**Input:** Standard Input, **Output:** Standard Output

**Time Limit:** 1 second(s)

**Memory Limit:** 256 megabytes

**Problem Statement:**

You are given two integers **N** and **X**. You have to find the number possible **pairs of integers A, B** such that **A^B = N** and **A , B <= X**. Here **‘^’** means bitwise **XOR** operation.

If **N = 1** and **X = 7**, then

**A B A^B**

0 1 1

2 3 1

4 5 1

6 7 1

In this above example, there are **4** possible **pairs of A, B** such that **A^B = N** and **A,B <= X** .

**Input:**

The first line contains an integer **t (1 ≤ t ≤ 100000)**. Then **t** test cases follows.

The only line of each test case contains **two** integers **N (1 <= N <= 231 - 1)** and **X** . It is guaranteed that **X** is given as (**2k – 1)** where **(1 <= k <= 31)** and **X >= N**.

**Output:**

Print **the number of possible pairs** in a single line.

**Sample Input/Output:**

|  |  |
| --- | --- |
| **Sample Input** | **Sample Output** |
| 2  1 7  5 15 | 4  8 |