D Simple Adjacency Maximization

Input: Standard Input
Output: Standard Output

Find the smallest integer **N** that has both of the following properties:

1. The binary representation of **N** has exactly **P** 1s & exactly **Q** 0s. (Leading Zeroes are allowed).
2. The number of 1s adjacent to one or more 0 in the binary representation is maximized.

Input

The first line of the input file contains a single integer **C**, the number of test cases in the input file. Each of the next **C** lines contains two non-negative integers **P** & **Q** (1<=**P+Q<=50**).

Output

For each test case a print the value of **N**, as explained in the statement, in a line by itself.

Sample Input	Output for Sample Input
3 4 3 1 1 3 2	45 1 13

Problemsetter: Mohammad Mahmudur Rahman
Special Thanks: Sabbir Yousuf Sanny