Flip the cards

There are N cards on a table, out of which X cards are face-up and the remaining are face-down.

In one operation, we can do the following:

- Select any one card and flip it (i.e. if it was initially face-up, after the operation, it will be face-down and vice versa)

What is the minimum number of operations we must perform so that all the cards face in the same direction (i.e. either all are face-up or all are face-down)?

Input Format

- The first line contains a single integer T — the number of test cases. Then the test cases follow.
- The first and only line of each test case contains two space-separated integers N and X — the total number of cards and the number of cards which are initially face-up.

Output Format

For each test case, output the minimum number of cards you must flip so that all the cards face in the same direction.

Constraints

- $1 \leq T \leq 5000$
- $2 \leq N \leq 100$
- $0 \leq X \leq N$

Sample 1:

Input	
Output	
4 5 0 4 2 3 3 10 2	0 2 0 2

Explanation:

Test Case 1: All the cards are already facing down. Therefore we do not need to perform any operations.

Test Case 2: 2 cards are facing up and 2 cards are facing down. Therefore we can flip the 2 cards which are initially facing down.

Test Case 3: All the cards are already facing up. Therefore we do not need to perform any operations.

Test Case 4: 2 cards are facing up and 8 cards are facing down. Therefore we can flip the 2 cards which are initially facing up.