

Let  $A$  and  $B$  be non-negative integers and let  $C = A \& B$  and  $D = A | B$ . Given  $C$  and  $D$ , can you find  $A$  and  $B$  such that the absolute difference ( $|A - B|$ ) is minimal? ( $A \& B$  and  $A | B$  are bitwise AND and OR respectively).

## Input

The input starts with an integer  $T$  — the number of test cases ( $T \leq 100$ ).  $T$  cases follow on each subsequent line, each of them containing integers  $C$  and  $D$  ( $0 \leq C, D < 2^{31}$ ).

## Output

For each test case, print integers  $A$  and  $B$  on a line such that  $A \& B = C$ ,  $A | B = D$ ,  $A \leq B$  and  $B - A$  is minimal. If there are no such  $A$  and  $B$ , print '-1' on the line instead.

## Sample Input

```
3
2 3
3 2
3 15
```

## Sample Output

```
2 3
-1
7 11
```

