

## 1182 – Parity

Given an integer  $n$ , first we represent it in binary. Then we count the number of ones. We say  $n$  has odd parity if the number of one's is odd. Otherwise we say  $n$  has even parity.  $21 = (10101)_2$  has odd parity since the number of one's is 3.  $6 = (110)_2$  has even parity.

Now you are given  $n$ , we have to say whether  $n$  has even or odd parity.

### Input

Input starts with an integer  $T$  ( $\leq 1000$ ), denoting the number of test cases.

Each case contains an integer  $n$  ( $1 \leq n < 2^{31}$ ).

### Output

For each case, print the case number and 'odd' if  $n$  has odd parity, otherwise print 'even'.

Sample Input	Output for Sample Input
2	Case 1: odd
21	Case 2: even
6	