**Problem 1: In Search of an Easy Problem**

When preparing a tournament, Codeforces coordinators try their best to make the first problem as easy as possible. This time the coordinator had chosen some problem and asked n people about their opinions. Each person answered whether this problem is easy or hard.

If at least one of these n people has answered that the problem is hard, the coordinator decides to change the problem. For the given responses, check if the problem is easy enough.

**Input**

The first line contains a single integer n (1 ≤ n ≤ 100) — the number of people who were asked to give their opinions.

The second line contains n integers, each integer is either 0 or 1. If i-th integer is 0, then i-th person thinks that the problem is easy; if it is 1, then i-th person thinks that the problem is hard.

**Output**

Print one word: "EASY" if the problem is easy according to all responses, or "HARD" if there is at least one person who thinks the problem is hard.

Input   
3   
0 0 1

Output  
HARD

Input  
1  
0

Output   
EASY

**Note**

In the first example the third person says it is a hard problem, so it should be replaced.

In the second example the problem easy for the only person, so it doesn't have to be replaced.

**Answer the following questions.**

**1. Describe your solution approach.**

**2. What would be your implementation considerations (if any)?**

**3. Provide your implementation.**

**Note**: Since the problem is simple, the logic can be implemented in the main() itself.

**4. List the test cases.**

**Submission**

1. Check out the problem **1030A In Search of an Easy Problem** in https://codeforces.com/problemset/problem/1030/A
2. After checking your solution thoroughly, submit your program and get an **Accepted** message.

**Problem 2: Integer Sequence Dividing**

**Problem 1102A**

You are given an integer sequence 1,2, …, n. You have to divide it into two sets A and B in such a way that each element belongs to  **exactly one set** and |sum(A)−sum(B)| is minimum possible.

The value |x| is the absolute value of x and sum(S) is the sum of elements of the set S.

**Input**

The first line of the input contains one integer n (1≤ n ≤ 2⋅109).

**Output**

Print one integer — the minimum possible value of |sum(A)−sum(B)| if you divide the initial sequence 1,2, …,n intto two sets A and B.

**Examples**

**input**

3

**output**

0

**input**

5

**output**

1

**input**

6

**output**

1

**Note**

Some (not all) possible answers to examples:

In the first example you can divide the initial sequence into sets A={1,2} and B={3} so the answer is 0.

In the second example you can divide the initial sequence into sets A={1,3,4}and B={2,5} so the answer is 1.

In the third example you can divide the initial sequence into sets A={1,4,5} and B={2,3,6} so the answer is 1.

**Problem 3:** **Find Divisible**

**Problem 1096A**

You are given a range of positive integers from **L to R.**

Find such a pair of integers (x,y) that L ≤ x,y ≤ R x≠y and x divides y.

If there are multiple answers, print any of them.

You are also asked to answer ***T*** independent queries.

**Input**

The first line contains a single integer T (1 ≤ T ≤ 1000) — the number of queries.

Each of the next T lines contains two integers L and R (1 ≤ L ≤ R ≤ 998244353) — inclusive borders of the range.

It is guaranteed that test set only includes queries, which have at least one suitable pair.

**Output**

Print T lines, each line should contain the answer - two integers x and y such that L≤ x, y ≤ R, x≠y and x divides y. The answer in the i-th line should correspond to the i-th query from the input.

If there are multiple answers, print any of them.

**Example**

**input**

3

1 10

3 14

1 10

**output**

1 7

3 9

5 10

**Problem 4: Coins**

**Problem 1061A**

**https://codeforces.com/problemset/problem/1061/A**

**Problem 5:** **Dice Rolling**

**Problem 1093A**

[**http://codeforces.com/problemsNet/problem/1093/A**](http://codeforces.com/pro6blemsNet/problem/1093/A)

**Problem 6:** **Definite Game**

**Problem 1081A**

[**http://codeforces.com/problemset/prob-lem/1081/A**](http://codeforces.com/problemset/prob-lem/1081/A)

**Problem 7:** **Vova and Train**

**Problem 1066A**

[**http://codeforces.com/problemset/problem/1066/A**](http://codeforces.com/pr+oblemset/problem/1066/A)

**Problem 8:** **The King's Race**

**Problem 1075A**

[**http://codeforces.com/problemset/problem/1075/A**](http://codeforces.com/problemset/problem/1075/A)

**Problem 9:** **Petya and Origami**

**Problem 1080A**

**https://codeforces.com/problemset/problem/1080/A**

**Problem 10:** **Vasya and Chocolate**

**Problem 1065A**

[**https://codeforces.com/problemset/problem/1065/A**](https://codeforces.com/problemset/problem/1065/A)