

Ada and Fimbers

Ada the Ladybug is playing a games against her good friend Velvet Mite Vinit. They are playing a game which they call Fimber: There will be a few piles of seeds. In each move, the one who is in move can choose a pile and take **K** seeds from it, where **K** is equal to some Fibonacci number. They alternate in their turns. The one who can't move will lose.

Fibonacci number will be defined as $F_0=1, F_1=1, F_N=F_{N-1}+F_{N-2}$

As ladies go first Ada starts. Can you determine who will if both will play optimally?

Input

The first line of each test-case will contain an integer $1 \leq N \leq 10^5$, the number of piles.

The next line will contain **N** integers $0 \leq A_i \leq 3 \cdot 10^6$, the number of seeds in each pile.

Output

For each test-case, print the name of winner (so either "**Ada**" or "**Vinit**").

Example Input

```
6
3 3 1 8 3 4
```

Example Output

```
Ada
```

Example Input

```
1
10
```

Example Output

```
Vinit
```

Example Input

```
4
3 9 5 2
```

Example Output

```
Ada
```

Example Input

5
10 10 6 8 10

Example Output

Ada

Example Input

1
4

Example Output

Vinit

Example Input

4
6 1 7 3

Example Output

Ada

Example Input

5
7 10 9 3 10

Example Output

Ada

Example Input

6
4 6 10 9 3 8

Example Output

Vinit