

# Valentine's Day '18 J3 - Are they cute?

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**Time limit:** 3.0s    **Memory limit:** 64M  
PyPy 2: 1.4s    PyPy 2: 128M  
PyPy 3: 1.4s    PyPy 3: 128M

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Carol and Cactus think that everything is cute. However, cuteness, like everything is all relative.

For someone to be relatively cute, they must be cuter than more than half of the people present. You are seeking out potential partners, and you must be able to identify the cute people! Given the  $N$  values of cuteness (not in Carol numbers), decide if each person is cute.

## Constraints

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$$1 \leq N \leq 10^4$$

$$1 \leq K_i \leq 10^6$$

$$2 \leq |S_i| \leq 10$$

## Input Specification

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The first line will contain  $N$ , the number of people.

The following  $N$  lines will contain a string  $S_i$  and  $K_i$ , the name of the  $i^{\text{th}}$  person and their cuteness.

The name of the person will consist of one uppercase letter followed by only lowercase letters.

## Output Specification

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For each person output:

- `{Name} is cute! <3` if that person is cute.
- `{Name} is not cute. </3` if that person is not cute.

## Sample Input 1

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```
4
Carol 100
Allan 5
Cactus 1000
William 1
```

## Sample Output 1

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```
Carol is not cute. </3  
Allan is not cute. </3  
Cactus is cute! <3  
William is not cute. </3
```

## Sample Input 2

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```
7  
Tristan 888  
Peibae 503  
Clive 444  
Roi 231  
Dordor 564  
Stacy 43  
Chad 54
```

## Sample Output 2

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```
Tristan is cute! <3  
Peibae is cute! <3  
Clive is not cute. </3  
Roi is not cute. </3  
Dordor is cute! <3  
Stacy is not cute. </3  
Chad is not cute. </3
```

## Explanation for Sample Output 2

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While the first five people are all quite cute, only Tristan, Peibae and Dordor are cuter than 4 or more people.