DMOPC '17 Contest 5 P0 - Mimi and Pizza

Mimi is ordering pizza! She looks at the menu and sees the following options:

Name	Price	Vegetarian
C	$2	No
D	$2	Yes
A	$5	No
B	$5	Yes

Mimi's favourite pizza is type A, her next favourite is type B, then type C, and then type D. **She also notes that you can only order 1 type of pizza.**

Given her budget in dollars, B, the number of pizzas she wants to buy, P, and whether or not her vegetarian friends want some, determine the most preferred pizza she can buy, or `NO PIZZA` if she cannot buy P pizzas of any type.

Constraints

$0 \leq B \leq 1\,000$
$1 \leq P \leq 1\,000$

Input Specification

The first line of input will contain a single integer, B.
The next line of input will contain a single integer, P.
The next line of input will contain either `Y` if her vegetarian friends are coming, or `N` otherwise.

Output Specification

The most preferred pizza she can buy, or `NO PIZZA` if she cannot buy any pizza.

Sample Input

```
6
2
Y
```

Sample Output

D