

CODE PARTY - THE CHALLENGES

- Isaac was bored reading the usual way so he felt like reversing all (both words and the whole sentences) what he wants to read backwards. He needs a code to help him do this quick and fast

Inputs

```
5
He likes a lot of coding
All what you are seeing is not real
How will you feel if your code controls the world?
Money is the machine gun
we don't like seeing bugs and so we crush them
```

Given N and K and a list of numbers find the Kth minimum number and Kth maximum number. Write a code to print out kth Smallest and kth Largest numbers on a single line

Inputs

```
5
3 2
1 2 3
5 2
3 7 5 9 2
6 4
4 9 10 4 2 5
10 3
6 3 2 14 2 10 11 4 12 13
10 2
6 3 2 14 2 10 11 4 12 13
```

- Let's do some decrypting, a company wants to pass some special numbers to the other company but doesn't want other companies knowing except the company receiving it. Well, you're to make sure your code gets the special numbers out. So, there are different numbers in a line separated with spaces. A number might contain either 1 or 0 or both, for example 21 1 30 4 2 when extracted has 1s and 0s in form of 110. Your code is to extract those 1s and 0s and generate their equivalent decimal values.

Inputs

```
5
2
21 1 30 4 2
```

11 10 12 41 33 21 50
3
1 23 43 22 11
6 3 0 10
11 69 40
1
48 90 120 34 101 28
4
90 440 232 11000242 5821
10392 31 1110
32 90 50 31
403521 56931 154 159
3
680 203 110 301
40 30 21 53 41 53 100
20 21 71

- We need to reduce the numbers in the room. There is a code party and there are just too many guys in it and we need to reduce all, not by killing...isshhh, we need to code it up to know the guys that we are sending off. How to send them off will be done by our robot. Some guys entered with fake tickets and we need it check them all. A ticket contains just one special string that if you add up all the numbers generated by a single letter in that string it equals any even number needed to enter. Some fake tickets were created and we didn't check to see if are actually the right strings. We need your help to code this up. If we are allowing any let our robot print ENTER or else print SORRY

Inputs

5
even
fit
codeparty
fun
bugs

- We don't like getting stuck in traffic when in a FUTA shuttle drive. It is not nice. There are two routes buses A and B takes, the L (Long route) and the S (Short route). The L is just total of 12 mins while S is 5 mins but S has much traffic and a bus spends max of 4 mins in traffic and for the L a bus tends to meet at the S junction and spends max of 2 mins in traffic. Now we want to know the bus to return back to the starting point first. The traffic can remain slow or suddenly changes. Your code will take in both on A and B routes to and fro and the total mins spent in the traffic during the to and fro respectively. Let your code just return A or B bus returning first.

Inputs

```
5
A L S 3 2
B S S 4 3
A S S 1 2
B S S 4 3
A L S 1 3
B S S 4 4
A L S 2 2
B S S 1 3
A L S 2 1
B S S 1 1
```

- Given a list of words find which letter has the most frequency. And if you think there isn't any, your code should simply return None

Inputs

```
4
backspace
google
federal
magic
```

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REGEX

For each of the following expression, write a set of unique strings (7max) that will pass the test of the expression

Example:

```
/^([A-Za-z]{3})+V+([0-9]{2})+V+([0-9]{4})/
```

PASS

mat/10/2018

MAT/09/2002

1

```
/(http|ftp|https):\\\/[\\w-]+(\\.\\[\\w-]+)+([\\w.,@?^=%&#;\\/~+#+-]*[\\w@?^=%&#;\\/~+#+-])?#([a-zA-Z0-9]+)/
```

2

```
/^(([^<>()\\[\\]\\\\.,;:'"\\s@"]+(\\.[^<>()\\[\\]\\\\.,;:'"\\s@"]+)*|("[.+""))@((\\[[0-9]{1,3}\\.[0-9]{1,3}\\.[0-9]{1,3}\\.[0-9]{1,3}\\)|((([a-zA-Z\\-0-9]+\\.)+[a-zA-Z]{2,}))$)/
```
