2 Questions Total Marks: 70.0

2 Programming Questions

1. K Frequency + 20.0

2. Scientific farmer + 50.0

Question 1 Max. Marks 20.00

K Frequency

You are given a string S made of lowercase English alphabets. Find the character having the k^{th} largest frequency.
If there is more than one character that meets the condition, print the smallest one.
If there is no character that meets the condition print -1.

Input format

- The first line consists of a single integer, T, denoting the number of test cases.
- The first line of each test case consists of a single string made of lower case English alphabets.
- The second line of each test case consists of a single integer denoting k.

Output format

Print the required answer for each test case in a new line.

Constraints

$1 \leq T \leq 10$

$1 \leq |S| \leq 10^5$

$1 \leq k \leq 26$

Sample Input

```
2
aabcd
3
aabcd
2
```

Sample Output

```
-1
b
```

Explanation

2 Questions Total Marks: 70.0

2 Programming Questions

1. K Frequency + 20.0

2. Scientific farmer + 50.0

Question 2 Max. Marks 50.00

Scientific farmer

Harry Stine is one of the wealthiest farmers in the world (*net worth of $3.5 billion*). Stine is known as a math wiz and adopts unique practices when planting seeds and harvesting crops. For instance, his fields are always arranged in a circular layout to promote better pollination, e.g., if there are n fields, then the 1st field and the nth field are adjacent to each other. Also, his crop harvester machines never harvest two adjacent fields on the same day to minimize damage to standing crops. Each field produces a certain yield (value) of crops. Given a list of non-negative integers representing the yield of each field, determine the maximum yield of crops that Harry can harvest in a day.

Input format

- First line: **n** (integer, number of fields)
- Next **n** lines: non-negative integers, representing the crop yield of each field

Sample Input

```
3
4
2
3
```

Sample Output

```
4
```

Note: Your code should be able to convert the sample input into the sample output. However, this is not enough to pass the challenge, because the code will be run on multiple test cases. Therefore, your code must solve this problem statement.

Time Limit: 10.0 sec(s) for each input file

Memory Limit: 256 MB

Source Limit: 1024 KB

Marking Scheme: Marks are awarded if any testcase passes

Allowed Languages: Bash, C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Swift-4.1, Visual Basic

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