00 : 51 : 07 HRS MIN LIVE

Finish Test

IIITB Coding Practice Chapter 16

INSTRUCTIONS PROBLEMS SUBMISSIONS LEADERBOARD ANALYTICS JUDGE

← Problems / Monk and K-Operations

Monk and K-Operations

Max. Marks: 100

Given an array A having N integers, you have to perform exactly K operations on it. In each operation you have to delete either the first or the last element of the array. Monk defines power of an array as the product of first and last element of the array. Help Monk find out the maximum power he can achieve after performing exactly K operations.

Input:
First line consists of a single integer T, denoting the number of test cases.
First line of each test case consists of two space separated integers denoting N and K.
Second line of each test case consists of N space separated integers denoting the array A.

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

Constraints:
$1 \leq T \leq 10$
$1 \leq N \leq 10^5$
$0 \leq K < N$
$1 \leq A[i] \leq 10^9$

SAMPLE INPUT	SAMPLE OUTPUT
2 3 1 4 2 1 5 2 3 5 1 5 1	8 25

Explanation

In first case, Monk can delete either 4 or 1. If he deletes 4, resulting array will have power equal to 2. If he deletes 1, power of resulting array will be 8. So maximum power he can achieve is 8.

Time Limit:	1.0 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:	C, C++, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Visual Basic

CODE EDITOR

Enter your code or Upload your code as file.

Save | Python (python 2.7.6)

```
1  import sys
2
3  dp_table = {}
4
5  def max_power(arr, k, l, r):
6      key = str(k)+'$'+str(l)+'$'+str(r)
7      if(k == 0):
8          return arr[0]*arr[-1]
9      elif(key in dp_table):
10         return dp_table[key]
11     else:
12         ans = max(max_power(arr[1:], k
13         dp_table[key] = ans
14         return ans
15
16 t = int(sys.stdin.readline().rstrip())
17 for _ in range(t):
18     dp_table = {}
19     line = sys.stdin.readline().rstrip
20     line = line.split(" ")
21     n = int(line[0])
22     k = int(line[1])
23     line = sys.stdin.readline().rstrip
24     inp = line.split(" ")
25     arr = [int(el) for el in inp]
26     print max_power(arr, k, 0, len(arr
27
28
29     #for key, value in dp_table.items(
30     #    print key, value
31
32
```

1:1

Press Ctrl-space for autocomplete suggestions.

Provide custom input

COMPILE & TEST SUBMIT

Tip: You can submit any number of times you want. Your best submission is considered for computing total score.

Support: For any queries or issues, write to "roshni.dsouza"<roshni.dsouza@iiitb.ac.in>.

Your Rating: