

Problem L

Basic Programming 1


Problem ID: basicprogramm

CPU Time limit: 1 second

Memory limit: 1024 MB

Author: Steven Halim

Source: NUS Competitive Programming

License: 

You think you can code?

This problem will test you on various basic programming techniques.

You are given two integers N and t ; and then an array A of N integers (0-based indexing).

Based on the value of t , you will perform an action on A .

t	Action Needed
1	Print 7, regardless of the content of A
2	Print “Bigger” if $A[0] > A[1]$, or Print “Equal” if $A[0] == A[1]$, or Print “Smaller” otherwise (without the quotes); Ignore other indices of A , if any
3	Print the median of three integers $\{A[0], A[1], \text{ and } A[2]\}$; Ignore other indices of A , if any
4	Print the sum of all integers in A
5	Print the sum of all even integers in A
6	Apply modulo (%) 26 to each integer in A , Map integer 0/1/. . ./25 to character ‘a’/‘b’/. . ./‘z’, Finally, print the sequence of characters as a string (without the spaces)
7	a. Start from index $i = 0$; b. Jump to index $i = A[i]$; c. If the current index i is outside the valid bound of $[0..N-1]$, print “out” and stop; d. Else if the current index i is index $N-1$, print “Done” and stop; e1. Otherwise, repeat step b; e2. If doing this leads to an infinite loop, print “Cyclic” and stop; (all output are without the quotes)

Input

The first line of the input contains an integer N and t ($3 \leq N \leq 200\,000$; $1 \leq t \leq 7$).

The second line of the input contains N non-negative 32-bit signed integers.

Output

For each test case, output the required answer based on the value of t .

Scoring

There are 20 hidden test cases that test various requirements of this problem.
All 20 test cases will be tested.
Each hidden test case worth 5 points (the 7 sample test cases below worth 0 point).

Sample Input 1

```
7 1
1 2 3 4 5 6 7
```

Sample Output 1

```
7
```

Sample Input 2

```
7 2
1 2 3 4 5 6 7
```

Sample Output 2

```
Smaller
```

Sample Input 3

```
7 3
1 2 3 4 5 6 7
```

Sample Output 3

```
2
```

Sample Input 4

```
7 4
1 2 3 4 5 6 7
```

Sample Output 4

```
28
```

Sample Input 5

```
7 5
1 2 3 4 5 6 7
```

Sample Output 5

```
12
```

Sample Input 6

```
10 6
7 4 11 37 14 22 40 17 11 3
```

Sample Output 6

```
helloworld
```

Sample Input 7

```
3 7
1 0 2
```

Sample Output 7

```
Cyclic
```