

Competitive Programming SS24

Submit until end of contest



Problem: river (1.0 second timelimit)

A race track for Hasso's Race Mice goes over lake HPI. The lake is w units wide, but mice can only jump up to l units, where $l < w$. Fortunately, there are some stones in the lake to help them. The stones are located at integer distances from the banks. Each stone can withstand a limited number of jumps, after that the stone drowns in the water. What is the maximum number of mice that can cross the lake, given that they can't swim?

Input The first line contains the width of the lake at the point the track crosses the lake $2 \leq w \leq 1000$ and the strength of the mice running this track $1 \leq l \leq 30$ in maximum jump units. The second line contains $w-1$ integers describing the resilience $0 \leq a_i \leq 10^4$ of the stone at distance $1 \leq i \leq w-1$. A resilience of 0 means there is no stone.

Output Print the maximum number of mice that can finish the track without drowning.

Sample input

```
10 5
0 0 0 0 2 0 0 0 0
```

```
10 5
0 0 1 0 2 0 0 1 0
```

```
10 4
0 0 1 0 2 0 0 1 0
```

```
10 3
1 1 1 1 2 1 1 1 1
```

Sample output

```
2
```

```
3
```

```
1
```

```
3
```