Problem E
Coin Game

Problem Description

Tom and Alan are good friends. They are both very smart and they like to play strategy games. One of their favorite games is the coin game. In this game, many coins are arranged in a row from left to right, and each coin has its own value. The two players can take some coins in turn until all the coins are taken. In each turn, a player can take 1 to K coins from the left. The score of each player is the sum of the values of all the coins he gets. Whoever gets a higher score wins (they draw if they have equal score). Since Tom and Alan can see all the coin-values when the game begins, they can always make the best decision to make their final score as high as possible. Can you compute the difference of their final score, assuming that they both use the best strategy?

Technical Specifications

1. The number of test cases would be smaller than or equal to 100.

2. The number of coins N would satisfy $1 \leq N \leq 1000$.

3. The maximum number of coins K that a player can take in one turn would satisfy $1 \leq K \leq 1000$.

4. The coin-values would be integers chosen from the range $[-10000, 10000]$.

Input Format

Each case consists of two lines. The first line contains two integers N and K, denoting the number of coins in the row and the maximum number of coins a player can take in one turn. The second line contains exactly N integers, which are the values of the coins.

Output Format

For each test case, output in a line the first player's score minus the second player's score.

Sample Input

```
4 2
1 1 1 3
3 2
1 -1 2
8 3
1 1 1 4 1 1 3 3
```

Sample Output

```
2
0
1
```