

# Another Problems of Sequence

For a sequence of integer A with n element and interger k. Find sqquence of index  $1 \leq i_1 < i_2 < \dots < i_{3k} \leq n$  be content with:

$$S = (a_{i_1} - a_{i_2} + a_{i_3}) + (a_{i_4} - a_{i_5} + a_{i_6}) + \dots + (a_{i_{(3k-2)}} - a_{i_{(3k-1)}} + a_{i_{(3k)}}) \text{ maximum.}$$

## Input

- First line are tow interger n and k ( $0 < 3k \leq n$ ).
- Second line have n interger  $a_1, a_2, \dots, a_n$  ( $|a_i| \leq 10^9$ )

## Output

- The value maximum of S.

## Example

**Input:**

5 1  
1 2 3 4 5

**Output:**

4

**Limit:**

Subtask 1:  $n \leq 400$ ;  $k=1$  (15 test)

Subtask 2:  $n \leq 4000$ ;  $k=1$  (15 test)

Subtask 3:  $n \leq 40000$ ;  $k=1$  (15 test)

Subtask 4:  $n \leq 4000$ ;  $k=2$  (15 test)

Subtask 5:  $n \leq 400$ ;  $k \leq 10$  (20 test)

Subtask 6:  $n \cdot k \leq 40000$  (20 test)