

Available memory: 128 MB.

We say that an integer sequence  $a_1, a_2, \dots, a_n$  is *k-even* if the sum of any  $k$  consecutive terms of the sequence is even.

For a given sequence we would like to find out how many of its terms need to be changed so that the sequence becomes *k-even*.

## Input

The first line of input contains two integers  $n$  and  $k$  ( $1 \leq k \leq n \leq 1\,000\,000$ ). The second line contains a sequence composed of  $n$  integers  $a_1, a_2, \dots, a_n$ . For each of the  $a_i$ 's it holds that  $0 \leq a_i \leq 1\,000\,000\,000$ .

## Output

The only line of output should hold one integer: the minimum number of terms of the sequence that need to be changed so that it becomes *k-even*.

## Example

For the input data:

```
8 3
1 2 3 4 5 6 7 8
```

the correct result is:

```
3
```

whereas for the input data:

```
8 3
2 4 2 4 2 4 2 4
```

the correct result is:

```
0
```