

Algorithm Class Mini-Contest 2

Problem: FRUITS

Time Limit: 1.0 seconds

Memory Limit: 64 MB

Problem Description You are in a fruit-eating competition lasting N days. On each day i , you are given G_i fruits, and you can eat E_i fruits. You can keep fruits across days if you can't finish them on one day, but you can only keep them for the next K days, before they rot and you cannot eat them anymore.

Input Format The first line of input will contain two integers, N , K . The second line of input contains N integers, representing the array G . The third line of input contains N integers, representing the array E .

Output Format The output should contain exactly one line with one integer, the maximum number of fruits you can eat.

Limits These are the bounds on the input.

Subtask	Score	Additional Bounds
1	15	$1 \leq N \leq 1,000, 0 \leq K \leq 3$
2	20	$1 \leq N \leq 1,000, 0 \leq K \leq 1,000$
3	25	$1 \leq N \leq 200,000, 0 \leq K \leq 200,000, 0 \leq G_i, E_i \leq 3$
4	40	$1 \leq N \leq 200,000, 0 \leq K \leq 200,000$
<i>All</i>	-	$0 \leq G_i, E_i \leq 10^9$

Sample Input

```
3 1
5 4 1
3 3 3
```

Sample Output

```
9
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