# COCI '18 Contest 6 #3 Sličice

**Time limit:** 0.6s **Memory limit:** 64M

Nikola is a passionate collector of albums with images of football players. He and his friends compete with each other in a game they invented based on the albums whose images are currently being collected. The images in that album are divided into $N$ teams, each of which has exactly $M$ football players. The main rule of the game is that the total number of points a person wins for $i^{\text{th}}$ team is $B_x$, where $x$ is the total number of unique pictures of football players of that team collected by the person. They have also agreed that the array $B$ is growing, i.e. having more unique images of football players of a team means having more or equal points.

Nikola would like to win as many points as possible in the game. For each team $x$ the amount of unique images Nikola currently owns of that team, $P_x$, is known.

Ivan is a friend of Nikola who has already collected the entire album twice and when he heard about the game Nikola plays with his friends, he decided to give him any $K$ images that Nikola wants. After finding out about this joyful news, Nikola wondered what is the maximal number of points he could have after Ivan gives him $K$ images. Too excited for this news, he is not able to count and begs you to answer his question.

## Input

In the first line there are integer numbers $N$, $M$ and $K$ $(1 \leq N, M \leq 500, 1 \leq K \leq \min(N \cdot M, 500))$, numbers from the task's text.

In the second line there is an array $P$ consisting of $N$ non-negative integer numbers $(0 \leq P_i \leq M)$.

In the third line there is an array $B$ consisting of $M + 1$ non-negative integer numbers $(0 \leq B_i \leq 100\,000)$, amount of points Nikola gets for $i$ $(0 \leq i \leq M)$ unique images of a team.

For every $t$ between $0$ and $M - 1$ it holds $B_t \leq B_{t+1}$.

It is also holds that $K \leq N \cdot M - (P_1 + P_2 + \cdots + P_N)$.

## Output

In the only line print the answer to Nikola's question.

## Scoring

In test samples totally worth 20% of the points it will hold $K = 2$.

## Sample Input 1

```
4 4 3
4 2 3 1
0 1 3 6 10
```

## Sample Output 1

```
31
```

## Explanation for Sample Output 1

Nikola is most likely to ask Ivan to give him an image of the third team and two from the second, so that his score is $31$ $(10 + 10 + 10 + 1)$.

## Sample Input 2

```
4 3 5
1 1 2 3
0 1 2 3
```

## Sample Output 2

```
12
```

## Sample Input 3

```
3 6 2
2 4 1
31 38 48 60 75 91 120
```

## Sample Output 3

```
206
```