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Bon Appétit

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Problem

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Anna and Brian order n items at a restaurant, but Anna declines to eat any of the k^{th} item (where $0 \leq k < n$) due to an allergy. When the check comes, they decide to split the cost of all the items they shared; however, Brian may have forgotten that they didn't split the k^{th} item and accidentally charged Anna for it.

You are given n, k , the cost of each of the n items, and the total amount of money that Brian charged Anna for her portion of the bill. If the bill is fairly split, print `Bon Appetit`; otherwise, print the amount of money that Brian must refund to Anna.

Input Format

The first line contains two space-separated integers denoting the respective values of n (the number of items ordered) and k (the 0-based index of the item that Anna did not eat).

The second line contains n space-separated integers where each integer i denotes the cost, $c[i]$, of item i (where $0 \leq i < n$).

The third line contains an integer, b_{charged} , denoting the amount of money that Brian charged Anna for her share of the bill.



Constraints

- $2 \leq n \leq 10^5$
- $0 \leq k < n$
- $0 \leq c[i] \leq 10^4$
- $0 \leq b \leq \sum c[i]$

Output Format

If Brian did not overcharge Anna, print `Bon Appetit` on a new line; otherwise, print the difference (i.e., $b_{\text{charged}} - b_{\text{actual}}$) that Brian must refund to Anna (it is guaranteed that this will always be an integer).

Sample Input 0

```
4 1
3 10 2 9
12
```

Sample Output 0

```
5
```

Explanation 0

Anna didn't eat item $c[1] = 10$, but she shared the rest of the items with Brian. The total cost of the shared items is $3 + 2 + 9 = 14$ and, split in half, the cost per person is $b_{\text{actual}} = 7$. Brian charged her $b_{\text{charged}} = 12$ for her portion of the bill, which is more than the 7 dollars worth of food that she actually shared with him. Thus, we print the amount Anna was overcharged, $b_{\text{charged}} - b_{\text{actual}} = 12 - 7 = 5$, on a new line.

Sample Input 1

```
4 1
3 10 2 9
7
```

Sample Output 1

```
Bon Appetit
```

Explanation 1

Anna didn't eat item $c[1] = 10$, but she shared the rest of the items with Brian. The total cost of the shared items is $3 + 2 + 9 = 14$ and, split in half, the cost per person is $b_{actual} = 7$. Because this matches the amount, $b_{charged} = 7$, that Brian charged Anna for her portion of the bill, we print `Bon Appetit` on a new line.

[f](#) [t](#) [in](#)


Submissions: 9788

Max Score: 10

Difficulty: Easy

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C#



```

1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Text;
5 class Solution {
6     static void Main(String[] args) {
7         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution
8         */
9         string[] input = Console.ReadLine().Split(' ');
10        int n = int.Parse(input[0]);
11        int k = int.Parse(input[1]);
12
13        int[] arr = Array.ConvertAll(Console.ReadLine().Split(' '), e => int.Parse(e));
14        int b = int.Parse(Console.ReadLine());
15
16        int b_actual = arr.Sum();
17
18        b_actual -= arr[k];
19        b_actual /= 2;
20
21        int res = b - b_actual;
22        if (res == 0)
23        {
24            Console.WriteLine("Bon Appetit");
25        }
26        else
27        {
28            Console.WriteLine(res);
29        }
30    }
31 }
32
33
34

```

Line: 20 Col: 32

 [Upload Code as File](#)☐ Test against custom input[Run Code](#)[Submit Code](#)**Congrats, you solved this challenge!**

✓ Test Case #0

✓ Test Case #3

✓ Test Case #6

✓ Test Case #1

✓ Test Case #4

✓ Test Case #2

✓ Test Case #5

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