**MINIMUM DIFFERENCE**

Time limit: 1s

Memory limit: 256MB

You are given two arrays, array A with N elements and array B with M elements. You are allowed to perform the following operation any number of times with a crucial integer named P:

- Choose an element of A and an element of B, then decrease both elements by P. In other words, let’s call the elements and , the operation allows you to replace by and by .

Let’s denote the maximum and minimum value of array A after performing a number of operations (0 or many, depends on you) by and , respectively. Similarly, let’s denote the maximum and minimum value of array B after performing a number of operations by and . Your mission is to calculate minimum possible value of this expression:

**Input**

The first line of the input contains 3 space-separated integers – the size of array A, the size of array B and the crucial integer, respectively.

The second line contains space-separated integers .

The third line contains space-separated integers .

**Output**

Print a single line containing the minimum possible value of the expression.

**Sample**

|  |  |
| --- | --- |
| 2 2 3  2 3  8 1 | 2 |