**Product of Polynomials**

**Problem Description**

Can you find the product of two polynomials that are given in the form of arrays of their coefficients? Your code should take both the arrays, let's say *A* and *B*, alongwith their respective sizes *M* and *N* as the input parameters. Then multiply these two polynomials and return their product in the form of an array of its coefficients.

**Input Format**

Either space separated or in different lines, following are the input parameters in sequence:-

Size of first array, *M*

Size of second array, *N*

Elements of first array, *A*

Elements of second array, *B*

**Output Format**

Product of polynomials in form of an array

**Constraints**

1<= *M*, *N*, *A*[i], *B*[i] <= 100

where ‘i’is the array index.

**Sample Input**

**3**

**3**

**5 2 1**

**4 3 2**

**Sample Output**

**20 23 20 7 2**

**Explanation**

Size of both arrays is 3 so both the polynomials have 3 terms.

Polynomial A = 5.x0 + 2.x1 + 1.x2

Polynomial B = 4.x0 + 3.x1 + 2.x2

Their Product= 20.x0 + (15.x1 + 8.x1)+ (10.x2 + 4.x2 + 6.x2)+ (4.x3 + 3.x2) + 2.x4

= 20.x0 + 23.x1 + 20.x2 + 7.x3 + 2.x4

So the output happens to be: 20 23 20 7 2