Polynomial multiplication

ZPRAC-16-17-Lab5

ANNOUNCEMENT: Up to 20% marks will be allotted for good programming practice. These include
- Comments for non trivial code
- Indentation: align your code properly
- Function use and modular programming

Multiply two polynomials together.

Input :
The first line will contain two space separated numbers, n1 and n2 - respectively the degrees of the first and second polynomials.
The second line will contain the first polynomial, that is space separated (n1 + 1) terms. The i'th term is the coefficient of x^(i-1). The coefficient of x^n1 will be non-zero.
The third line will contain the second polynomial, that is space separated (n2 + 1) terms. The i'th term is the coefficient of x^(i-1). The coefficient of x^n2 will be non-zero.
Each coefficient will be a number in [-1000, 1000].

Output the third polynomial, in a similar format. The degree on the first line, followed by the coefficients in the next line. The i'th term should be the coefficient of x^(i-1) in the new polynomial.

Constraints :
1 <= n1, n2 <= 15

Example:

Input:
2 2
3 1 -5
0 -2 4

(-5x^2 + x + 3)*(4x^2 - 2x) = -20x^4 + 14x^3 + 10x^2 - 6x + 0. So, output:
4
0 -6 10 14 -20