Произведение многочленов

In [6]:

```
a = list(map(int, input(
    "Input coefficients of the polynomial A in line: ").split()))
n = len(a)
b = list(map(int, input(
    "Input coefficientt of the polynomial B in line: ").split()))
m = len(b)
print(a, b, sep="\n")

c = [0]*(n + m - 1)
for i in range(n):
    for j in range(m):
        c[i + j] += a[i] * b[j]

print("Коэффициэанты произведения многочленов, начиная со степени 0")
print(c)
```

```
Input coefficients of the polynomial A in line: 1 1
Input coefficientt of the polynomial B in line: 1 -1
[1, 1]
[1, -1]
Коэффициэанты произведения многочленов, начиная со степени 0
[1, 0, -1]
```

Вывод матриц

In [8]:

```
x = [[1, 2, 3], [4, 5], [6, 7, 8, 9]]
for i in range(len(x)):
    for j in range(len(x[i])):
        print(x[i][j], end=" ")
    print()
```

```
1 2 3
4 5
6 7 8 9
```

In [11]:

```
for row in x:
    for r in row:
        print(r, end = " ")
    print()
```

```
1 2 3
4 5
6 7 8 9
```

In [12]:

```
for row in x:
    print(row)
```

```
[1, 2, 3]
[4, 5]
[6, 7, 8, 9]
```

Обнуление всех элементов матриц

In [13]:

```
n = 4
m = 3
x = [0] * n
```

```
for i in range(n):
    x[i] = [0] * m
print(x)
```

```
[[0, 0, 0], [0, 0, 0], [0, 0, 0], [0, 0, 0]]
```

In [15]:

```
y = []
for i in range(n):
    y.append([0] * m)
print(y)
```

```
[[0, 0, 0], [0, 0, 0], [0, 0, 0], [0, 0, 0]]
```

In [16]:

```
z = [[0] * m for i in range(n)]
print(z)
```

```
[[0, 0, 0], [0, 0, 0], [0, 0, 0], [0, 0, 0]]
```

Ввод элементов матрицы

In [17]:

```
# по одному элементу в строке
n = 2
m = 2
x = [[0] * m for i in range(n)]
for i in range(n):
    for j in range(m):
        x[i][j] = int(input())
print(x)
```

```
1
1
1
1
[[1, 1], [1, 1]]
```

In [19]:

```
# построчно с переменным числом в строке
n = 3
x = []
for i in range(n):
    x.append([int(j) for j in input().split()])
print(x)
```

```
1 2 3 4 4
1 2 3 4
1 1 1 1
[[1, 2, 3, 4, 4], [1, 2, 3, 4], [1, 1, 1, 1]]
```

In [20]:

```
n = 4
x = []
x = [[int(j) for j in input().split()] for i in range(n)]
print(x)
```

```
1 2 3 34
1 2 34
1 1
1
[[1, 2, 3, 34], [1, 2, 34], [1, 1], [1]]
```