```
>> X = [-2 -1 0 1 2 3]
X =

  -2  -1   0   1   2   3

>> Y = [1 4 11 16 13 -4]
Y =

    1    4   11   16   13   -4

>> p = polyfit(X, Y, 5)
p =

  -9.3721e-16   2.5077e-15  -1.0000e+00  -1.0000e+00   7.0000e+00   1.1000e+01

>> ans = 0;
>> for i = 5:-1:0
end
>> ans = 1.1000e+01
ans = 11
>> for i = 1:5
ans = ans + (p(i)^((i*-1) + 6))
end
ans = 11
ans = 11
ans = 10.000
ans = 11.000
ans = 18.000
```

```
>> X = [-2 -1 0]
X =

  -2  -1   0

>> Y = [1 4 11]
Y =

    1    4   11

>> [C L] = lagran(X, Y)
C =

    2    9   11

L =

   0.5000   0.5000        0
  -1.0000  -2.0000        0
   0.5000   1.5000   1.0000

>>
```

```
>> X = [-2 -1 0 1 2 3]
X =

  -2  -1   0   1   2   3

>> Y = [1 4 11 16 13 -4]
Y =

    1    4   11   16   13   -4

>> [C D] = newpoly(X, Y)
C =

    0    0   -1   -1    7   11

D =

    1    0    0    0    0    0
    4    3    0    0    0    0
   11    7    2    0    0    0
   16    5   -1   -1    0    0
   13   -3   -4   -1    0    0
   -4  -17   -7   -1    0    0

>>
```

```
>> X = [0 0.5 1 1.5]
X =

         0    0.5000    1.0000    1.5000

>> Y = [1 1.106531 0.867879 0.723130]
Y =

    1.0000    1.1065    0.8679    0.7231

>> [C L] = lagran(X, Y)
C =

    0.5854   -1.5685    0.8510    1.0000

L =

   -1.3333    4.0000   -3.6667    1.0000
    4.0000  -10.0000    6.0000         0
   -4.0000    8.0000   -3.0000         0
    1.3333   -2.0000    0.6667         0

>>
```

```
>> X
X =

         0    0.5000    1.0000    1.5000

>> Y
Y =

    1.0000    1.1065    0.8679    0.7231

>> [C D] = newpoly(X, Y)
C =

    0.5854   -1.5685    0.8510    1.0000

D =

    1.0000         0         0         0
    1.1065    0.2131         0         0
    0.8679   -0.4773   -0.6904         0
    0.7231   -0.2895    0.1878    0.5854

>>
```