```
>> X = [1 2 3 4 5]
X =

   1   2   3   4   5

>> Y =[1.4 2 2.3 3 3.4]
Y =

   1.4000   2.0000   2.3000   3.0000   3.4000

>> [A B] = lsline(X, Y)
A = 0.5000
B = 0.9200
>>
```

```
>> X = [0.5 1 1.5 2]
X =

   0.5000   1.0000   1.5000   2.0000

>> Y = [7.1 3.7 2.6 2]
Y =

   7.1000   3.7000   2.6000   2.0000

>> [A] = lspf(X, Y, -1)
A = 3.6234
>>
```

```
>> fminsearch('E', [2, -1])
Exceeded target...quitting
ans =

   -54.491   676.379

>>
```

```
function [A] = lspf(X, Y, m)

sumxmy = 0;
sumx2m = 0;
for i = 1:length(X)
   sumxmy += (X(i)^m) * Y(i);
   sumx2m += X(i)^(2*m);
end
A = sumxmy / sumx2m;
```