```
k=1:10
y=[4; 9; 10; 20; 29; 39; 54; 70; 91; 110]
X=[ ones(10,1), k', k'.^2]

Teta=X\y

yc=zeros(1,10);
E=zeros(1,10);
for i=1:10
    yc(i)=[1 k(i) k(i).^2]*Teta;
    E(i)=y(i)-yc(i);
end

subplot(2,1,1), plot(k,y,'r*', k,yc,'b')
subplot(2,1,2), plot(k,E)
grid on

MSE=0;
for i=1:10
    MSE=MSE+E(i).^2
end
MSE=MSE/10
```

```
k =

     1     2     3     4     5     6     7     8     9    10


y =

     4
     9
    10
    20
    29
    39
    54
    70
    91
   110


X =

     1     1     1
     1     2     4
     1     3     9
     1     4    16
     1     5    25
     1     6    36
     1     7    49
```

```
     1     8    64
     1     9    81
     1    10   100


Teta =

    4.7667
   -1.1591
    1.1742


MSE =

    0.6112


MSE =

    4.0506


MSE =

    7.5012


MSE =

    8.6715


MSE =

    9.1241


MSE =

   10.3010


MSE =

   10.3374


MSE =

   10.7540


MSE =
```

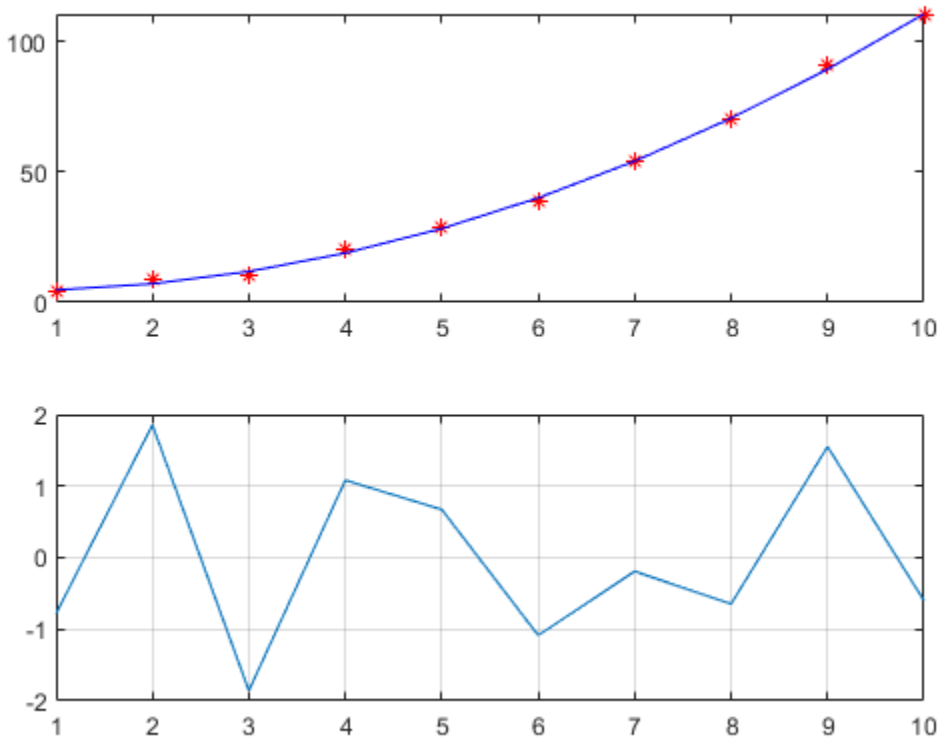
```
    13.1612

MSE =

    13.5212

MSE =

     1.3521
```



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