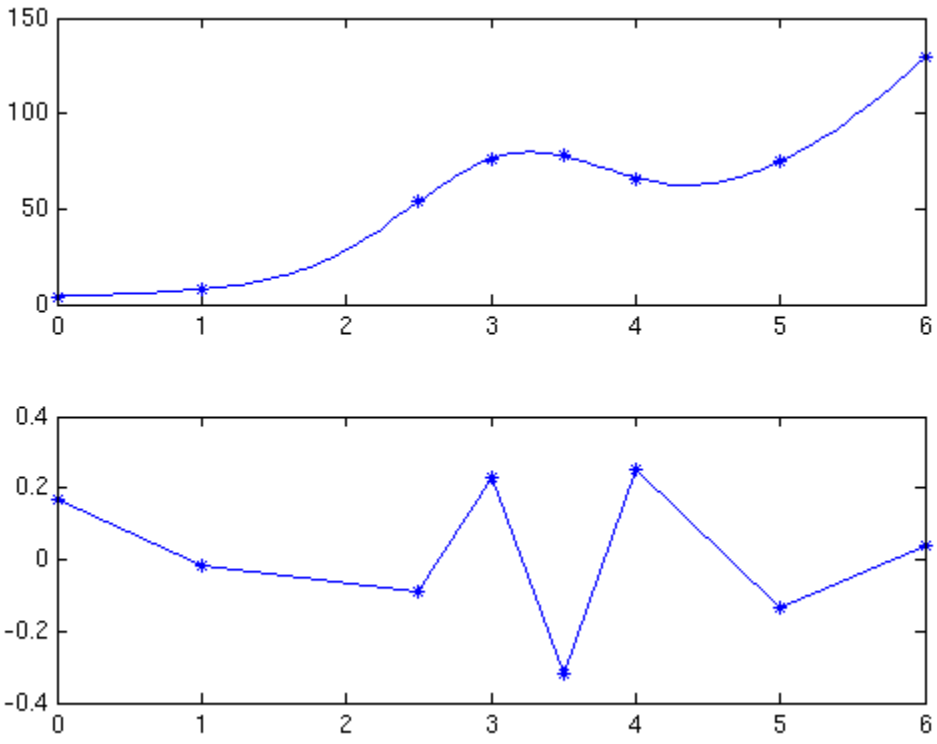
```
clear all, close all

t = [0 1 2.5 3 3.5 4 5 6]';
Y = [4 8 54 76 78 66 75 130]';

tol = 1e-6;

% startgissningar,
a = 6;
b = 47;
q = 1/2;
t0 = 3;
p = [a b q t0]';
disp(p')

h = inf(size(p));
while norm(h) >tol

    f = a*exp(q*t) + b*exp( -(t-t0).^2 ) - Y;

    J = [exp(q*t)...
         exp(-(t-t0).^2)...
         a*t.*exp(q*t)...
         2*b*(t-t0).*exp( -(t-t0).^2)];

    h = J\f;

    p = p - h;
    disp(p')

    a = p(1);
    b = p(2);
    q = p(3);
    t0 = p(4);

end

tt = linspace(0,6,100);
F = a*exp(q*tt) + b*exp( -(tt-t0).^2 );
r = a*exp(q*t) + b*exp( -(t-t0).^2 ) - Y;
subplot(2,1,1)
plot(t,Y,'*',tt,F,'b')
subplot(2,1,2)
plot(t,r,'-*')
```

```
    6.0000   47.0000    0.5000    3.0000
    4.0174   52.9561    0.5680    3.1389
    4.1640   53.7681    0.5738    3.1236
    4.1641   53.7794    0.5735    3.1238
    4.1641   53.7795    0.5735    3.1238
    4.1641   53.7795    0.5735    3.1238
```



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