
```

clear all, close all

T = (1950:5:1980) '-1950;
Y = [53.03 73.04 98.31 139.78 193.5 260.2 320.4]';

% startgissning
c1 = 50;
c2 = 0.01;
x = [c1; c2];

tol = 1e-10;

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

    F = c1*exp(c2*T)-Y;
    J = [exp(c2*T) c1*T.*exp(c2*T)];

    h = J\F;

    x = x - h;
    c1 = x(1);
    c2 = x(2);
    disp(x')
end

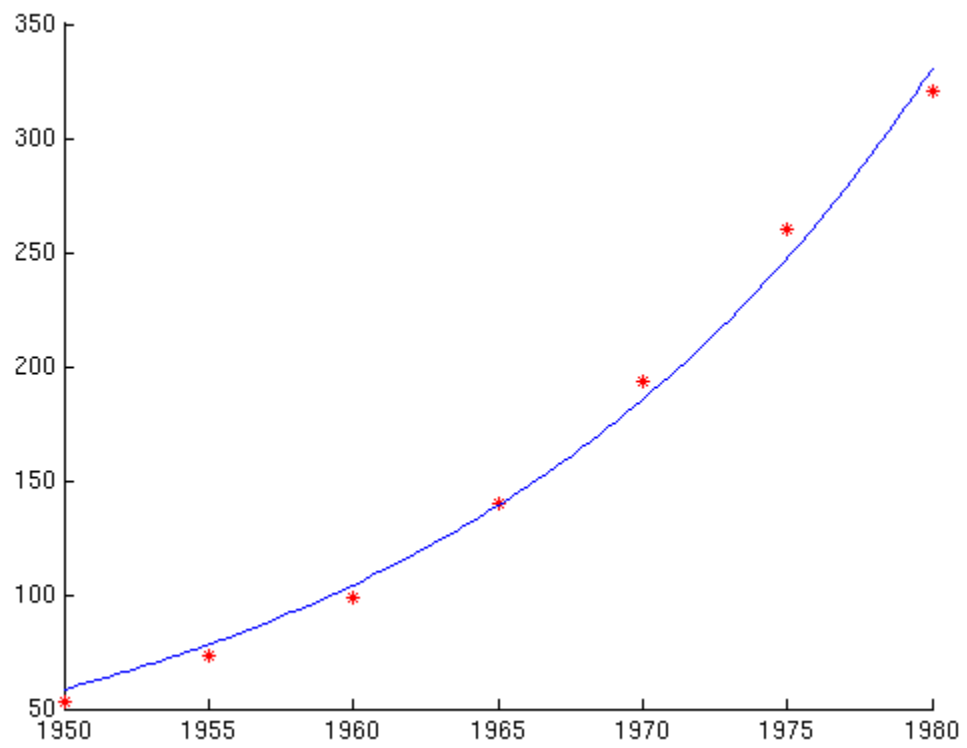
t = linspace(0,30,100);
f = c1*exp(c2*t);
plot(T+1950,Y, 'r*', t+1950,f), box off

```

```

35.1107    0.1402
27.3085    0.1186
37.9493    0.0833
54.5021    0.0589
58.5644    0.0576
58.4985    0.0577
58.5058    0.0577
58.5054    0.0577
58.5055    0.0577
58.5055    0.0577
58.5055    0.0577
58.5055    0.0577
58.5055    0.0577

```



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