Homework1

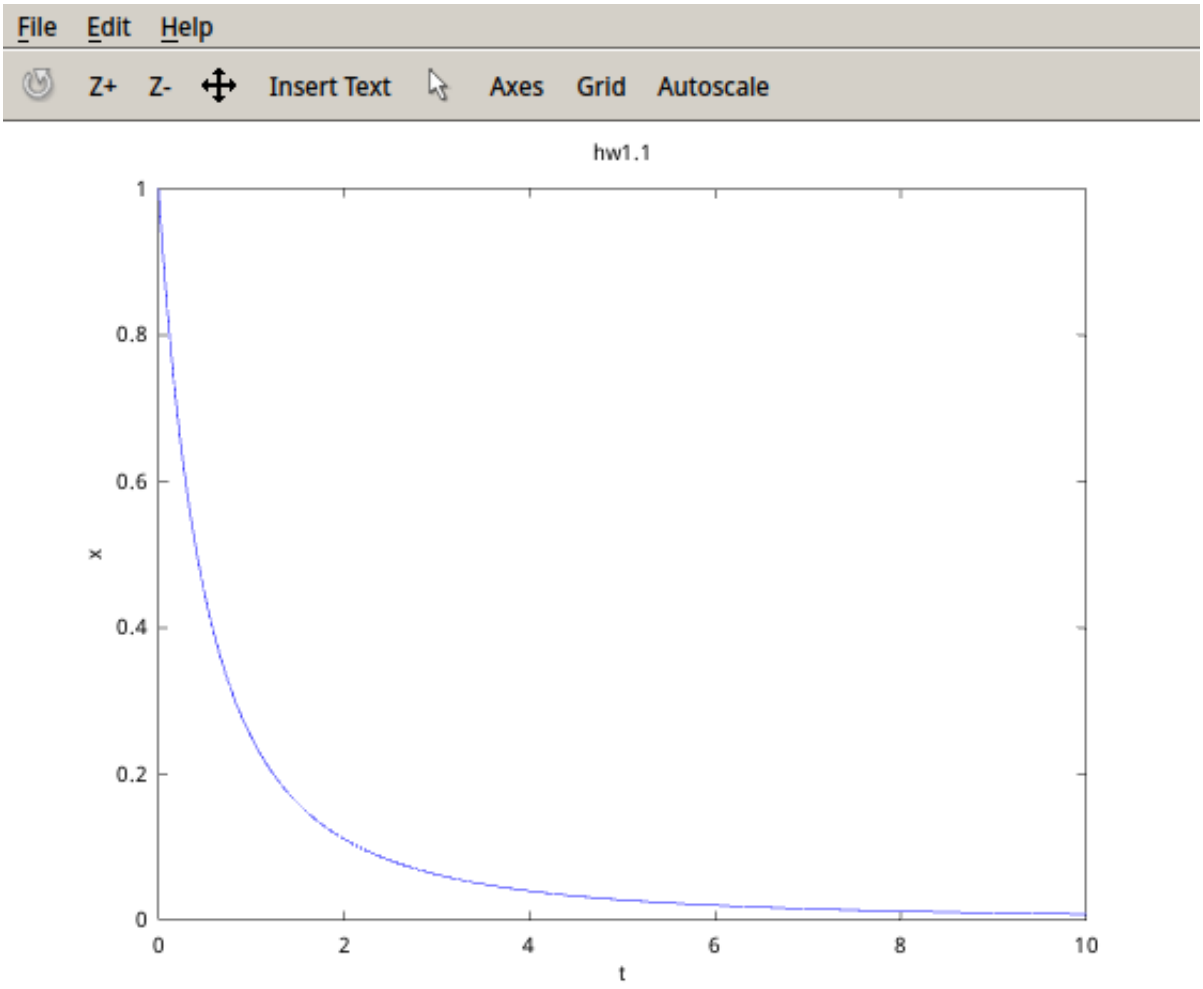
Yufeng Yuan

Homework1.1

Source code

```
% hw1.1
delta_t = 0.01;
t = [0 : delta_t : 10];
% the formular derived
x_tn = 1 ./ (1 + t).^2;
plot(t, x_tn), xlabel('t'), ylabel('x'), ti
tle('hw1.1');
```

Output



Homework1.2

Source code

```
% hw1.2
```

```
A = [2, -1, 0;
     -1, 2, -1;
     0, -1, 2];
B = [30; 0; 100];
% solve linear equation AX = B
X = A\B
```

Output

```
>> hw1_2

X =

   47.500
   65.000
   82.500

>>
```