



```

clear all; clc;
close all;
clearvars;
% Parameters
% Initial amount of substance (g)
X = 1100;
% Rate constant (1/h)
k = 0.2;
% Time step (h)
tstep = 1;
% Total time (h)
tmax = 50;
% Time vector
t = 0:tstep:tmax;
% Amount of substance present (g)
X = (1100) * exp(-k * t);
% Plot
plot(t, X);
xlabel('Time (h)');
ylabel('Amount of substance present (g)');
grid on;

```

7 lines: Chemicals not plotted
 1 - clearvars
 2 - tic
 3 - close all
 4 - t = 0:0.5:7.5;
 5 - f = 0.075*exp(-t/40)
 6 - plot(t,f);
 7 - xlabel('Time (s)');
 8 - ylabel('Amount of substance (g)');
 9 - grid on
 10 - hold on

Command Window
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 Column 100: 0.0000

Figure 1
 File Edit View Insert Tools Desktop Window Help

Amount of substance present (g)
 Time (s)


```
1 - clc
2 - close all
3 - clearvars
4 - symsolve(Dp=50*(1+sin(t))-0.025*y^2,t)
5 - t=[0:0.5:7.5]
6 - explicit(V,t)
7 - grid on
8 - grid minor
```

Command Window

```
V =
C2 + xD (-5/40) = (2000 + 50)^(2/2) * cos(t) + 50 sin(2/40) / 200 + 2000
```

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