Problem 7

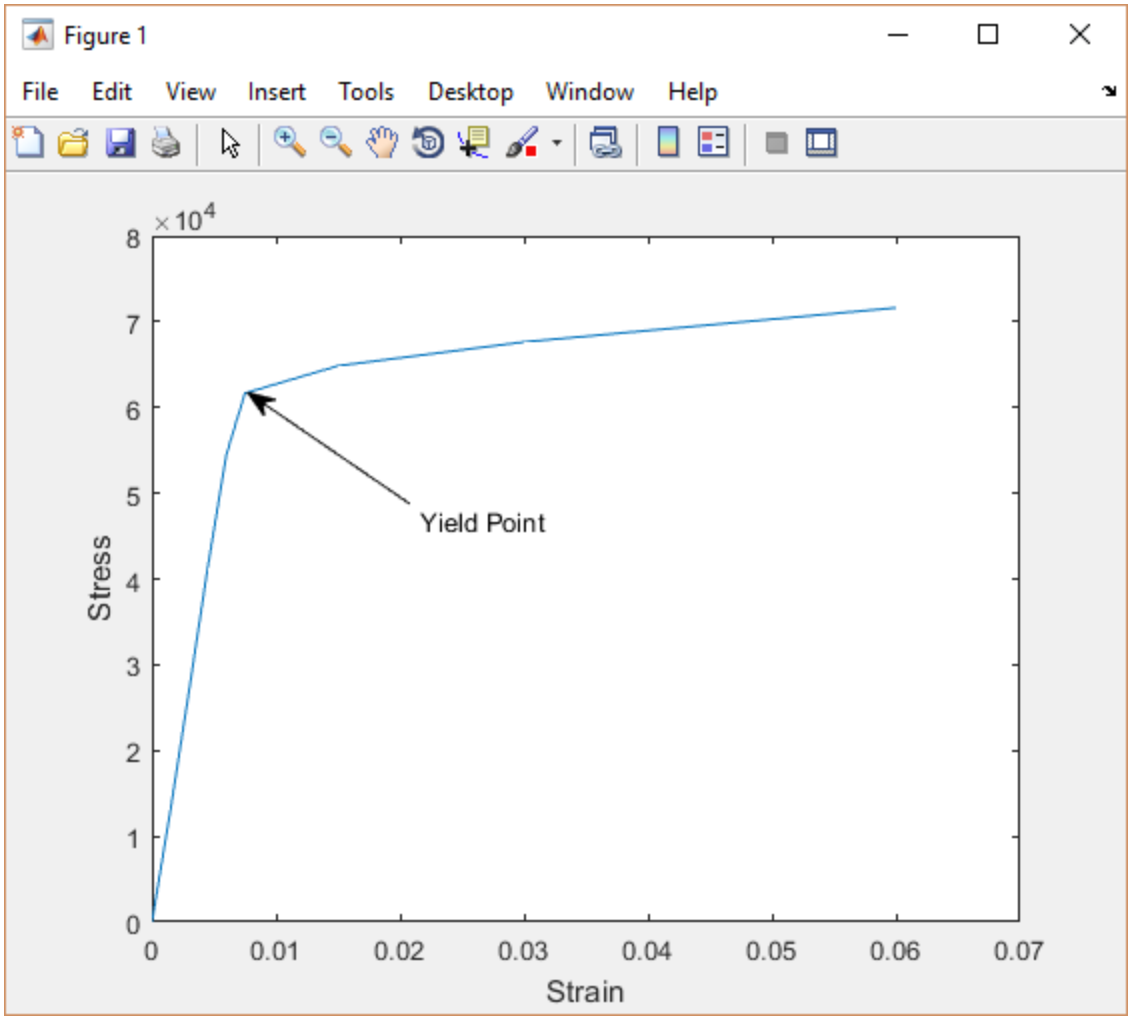


Figure 1
File Edit View Insert Tools Desktop Window Help
×10^4
8
7
6
5
4
3
2
1
0
Stress
Yield Point
0 0.01 0.02 0.03 0.04 0.05 0.06 0.07
Strain

Problem 9a

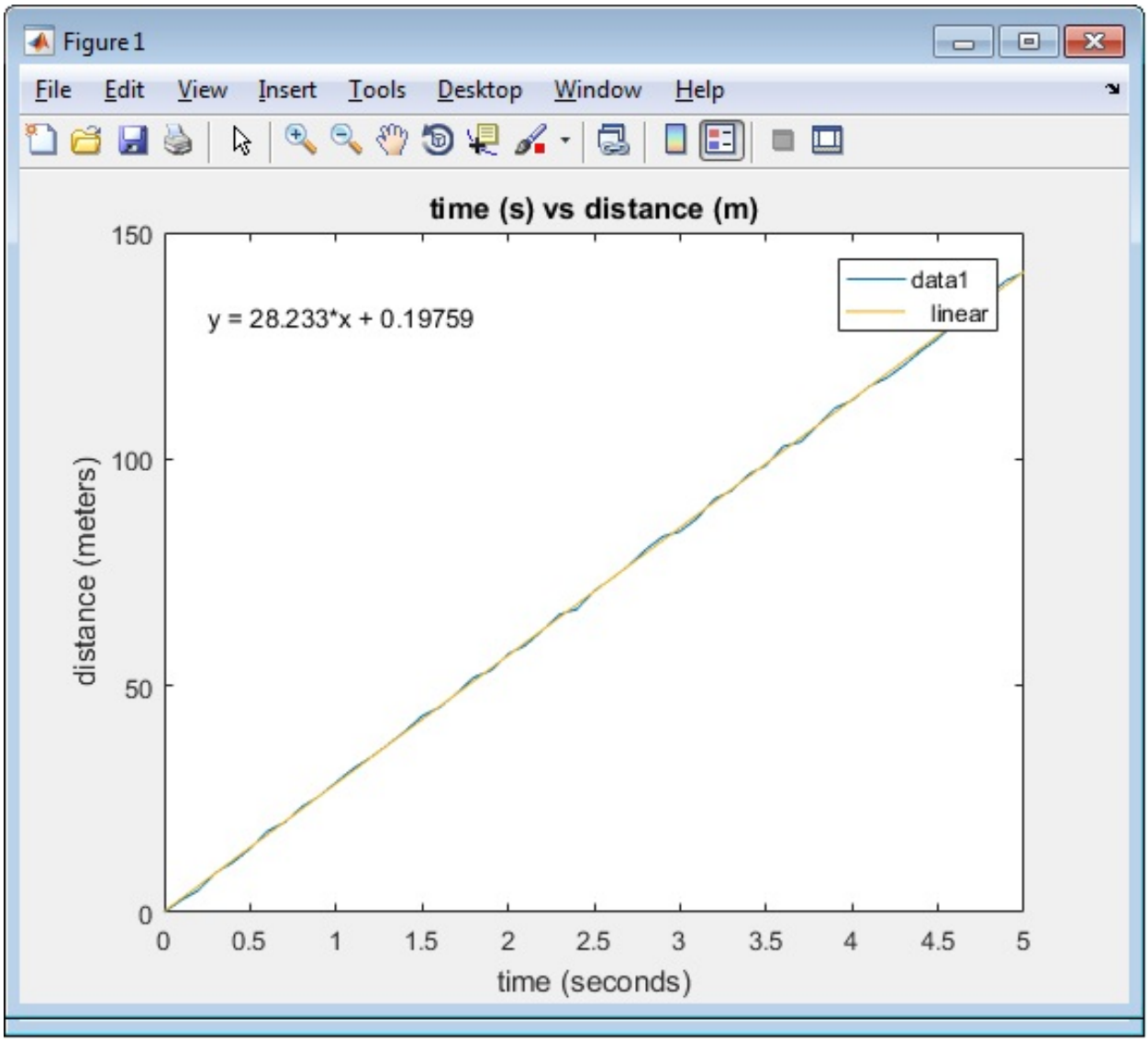
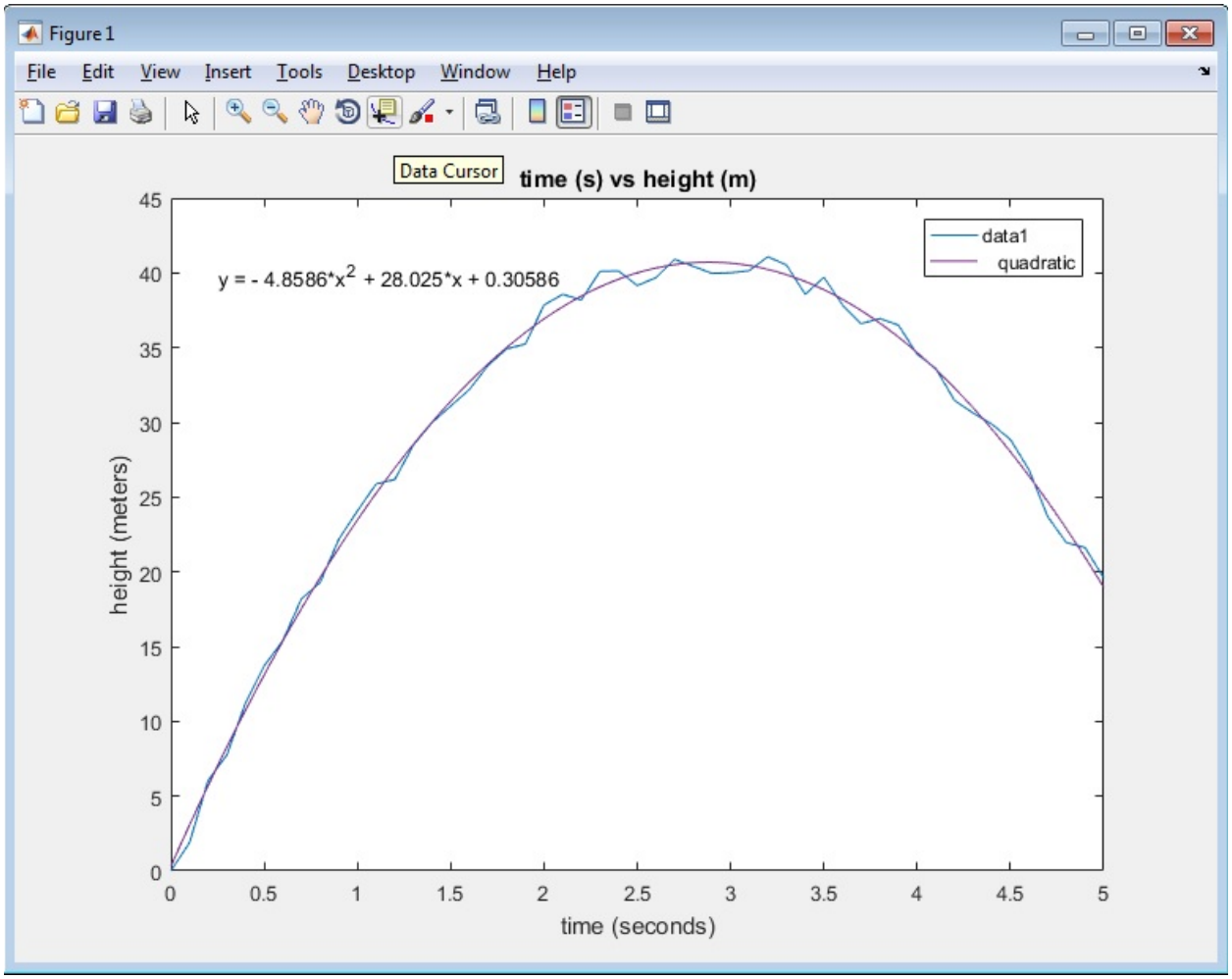


Figure 1
File Edit View Insert Tools Desktop Window Help
time (s) vs distance (m)
y = 28.233*x + 0.19759
data1
linear
distance (meters)
time (seconds)
0
50
100
150
0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

Problem 9b



Problem 10

Absolute Temperature (K)	**Estimated Reaction Rate, k(s^-1)**
280	2.9076
285	4.4288
290	6.693
295	9.825
300	14.494

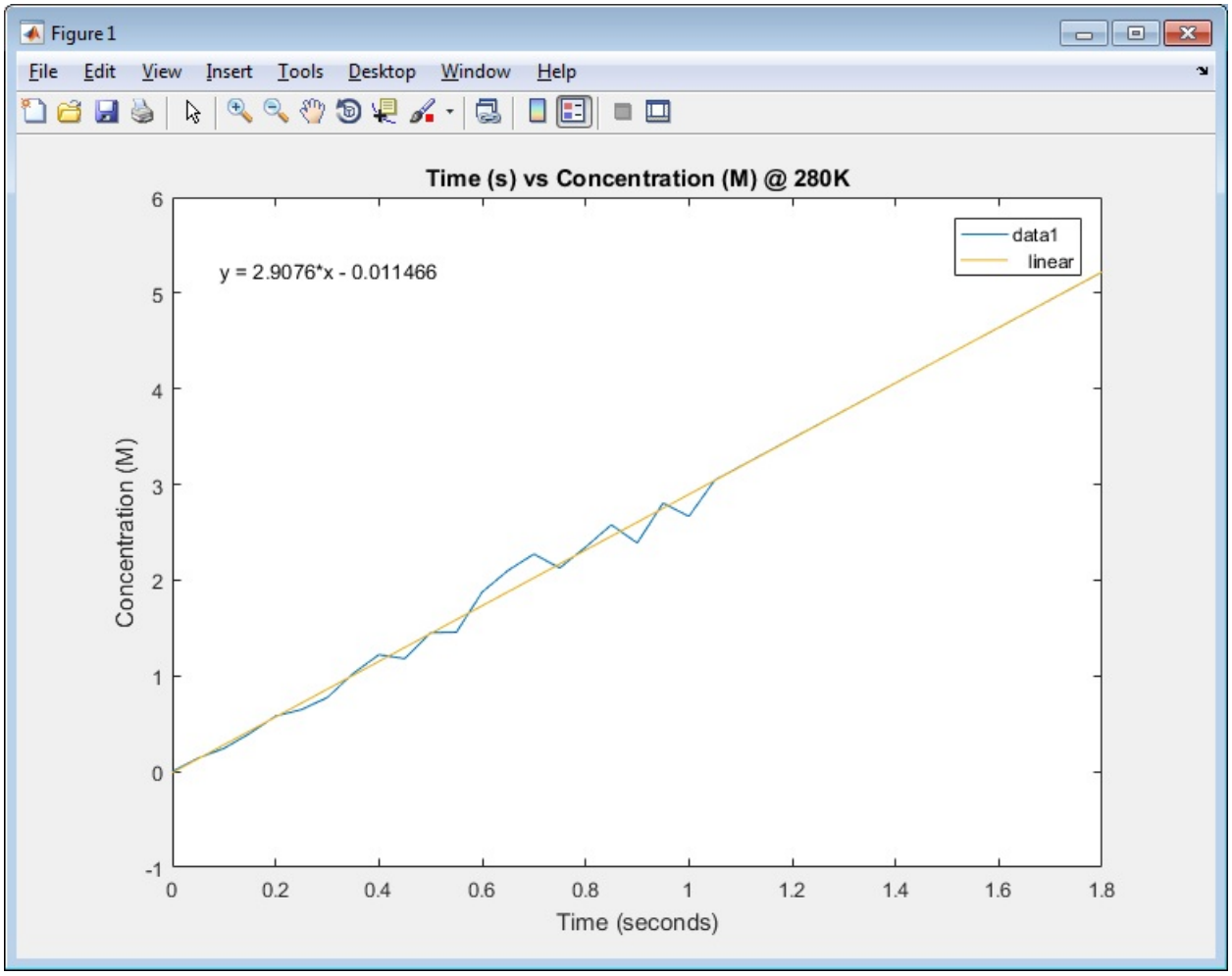


Figure 1
File Edit View Insert Tools Desktop Window Help
Time (s) vs Concentration (M) @ 280K
y = 2.9076*x - 0.011466
data1
linear
Concentration (M)
Time (seconds)
6
5
4
3
2
1
0
-1
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8

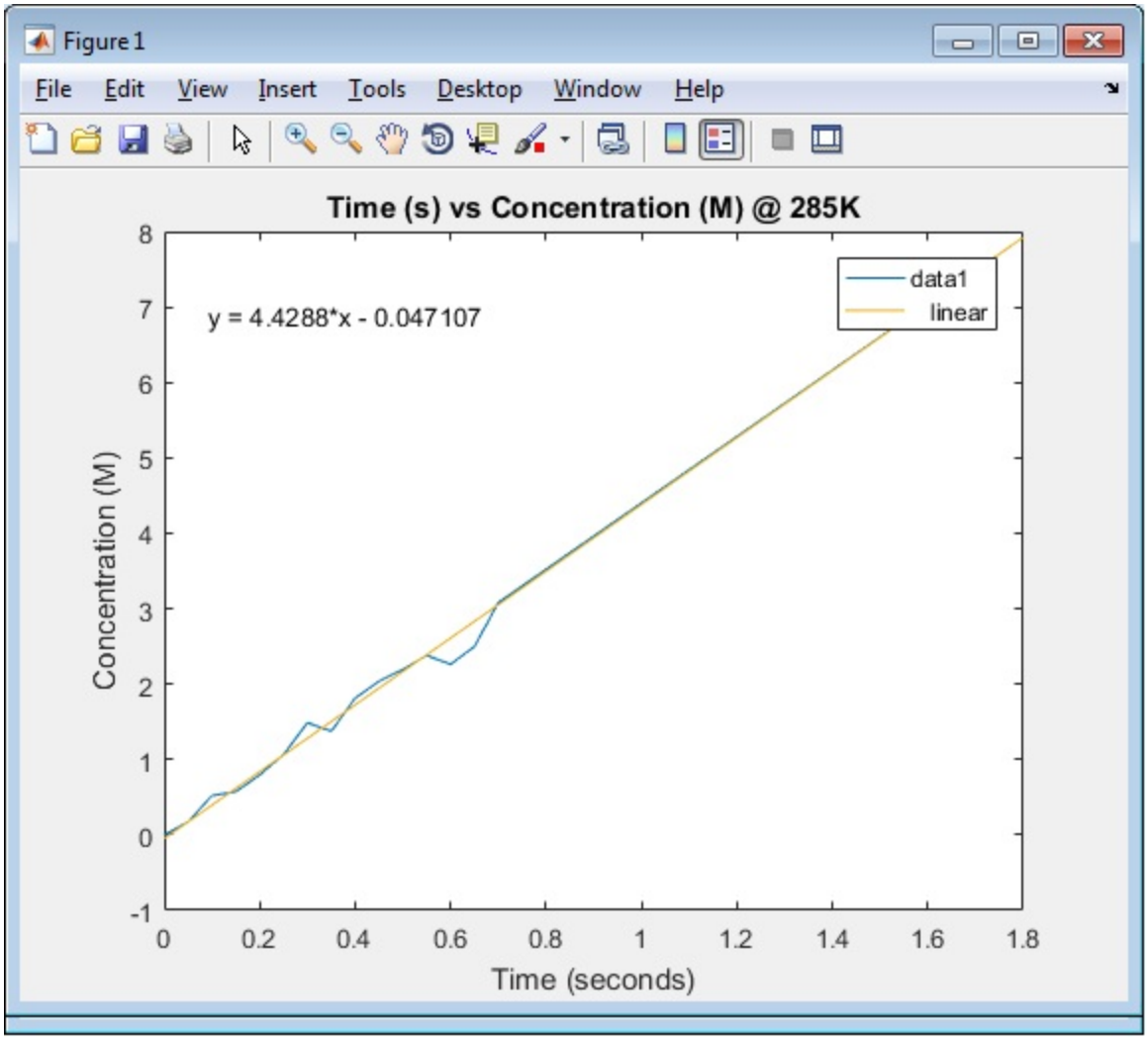


Figure 1
File Edit View Insert Tools Desktop Window Help
Time (s) vs Concentration (M) @ 285K
y = 4.4288*x - 0.047107
data1
linear
Concentration (M)
Time (seconds)
8
7
6
5
4
3
2
1
0
-1
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8

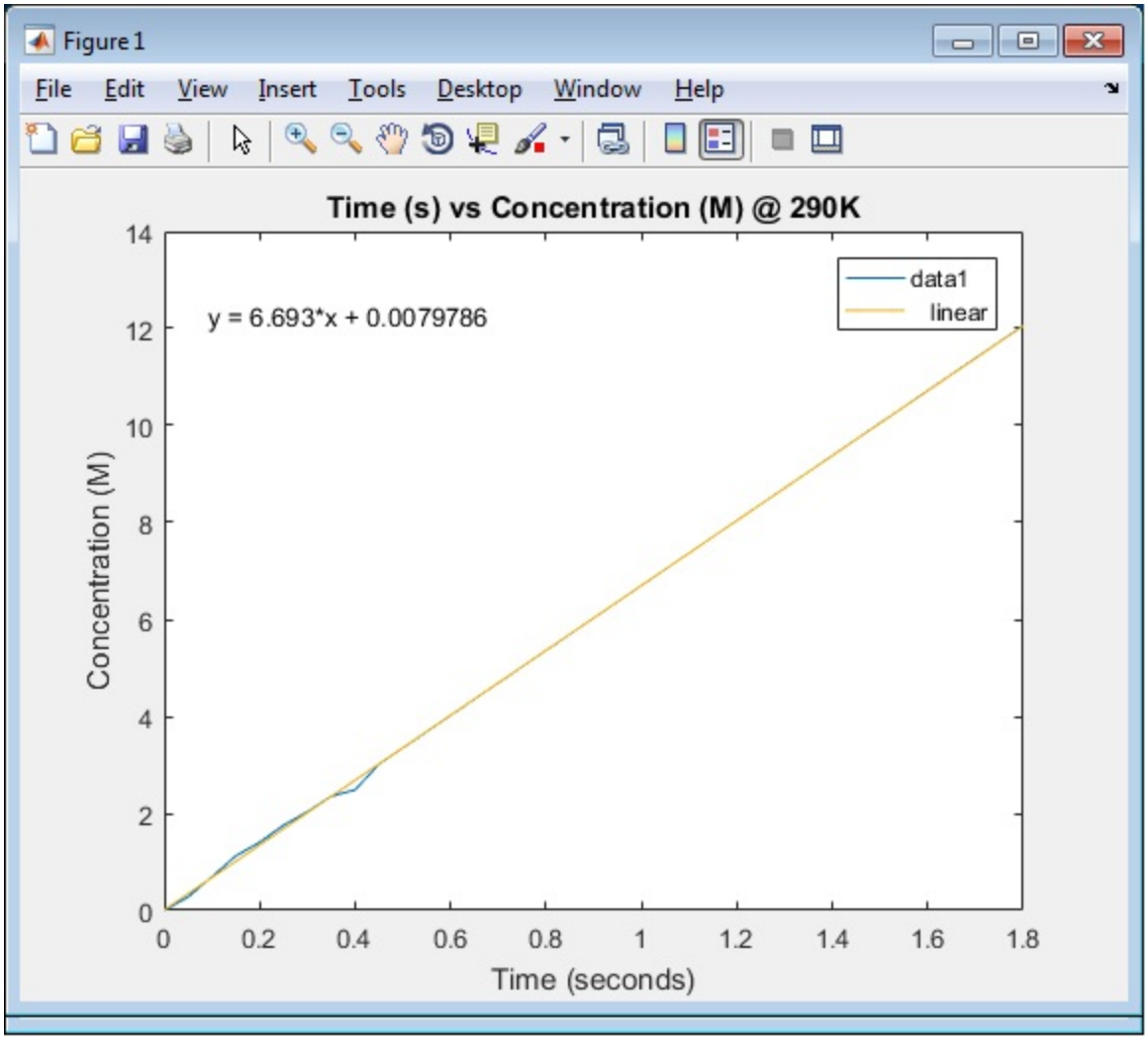


Figure 1
File Edit View Insert Tools Desktop Window Help
Time (s) vs Concentration (M) @ 290K
y = 6.693*x + 0.0079786
data1
linear
Concentration (M)
Time (seconds)
0
2
4
6
8
10
12
14
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8

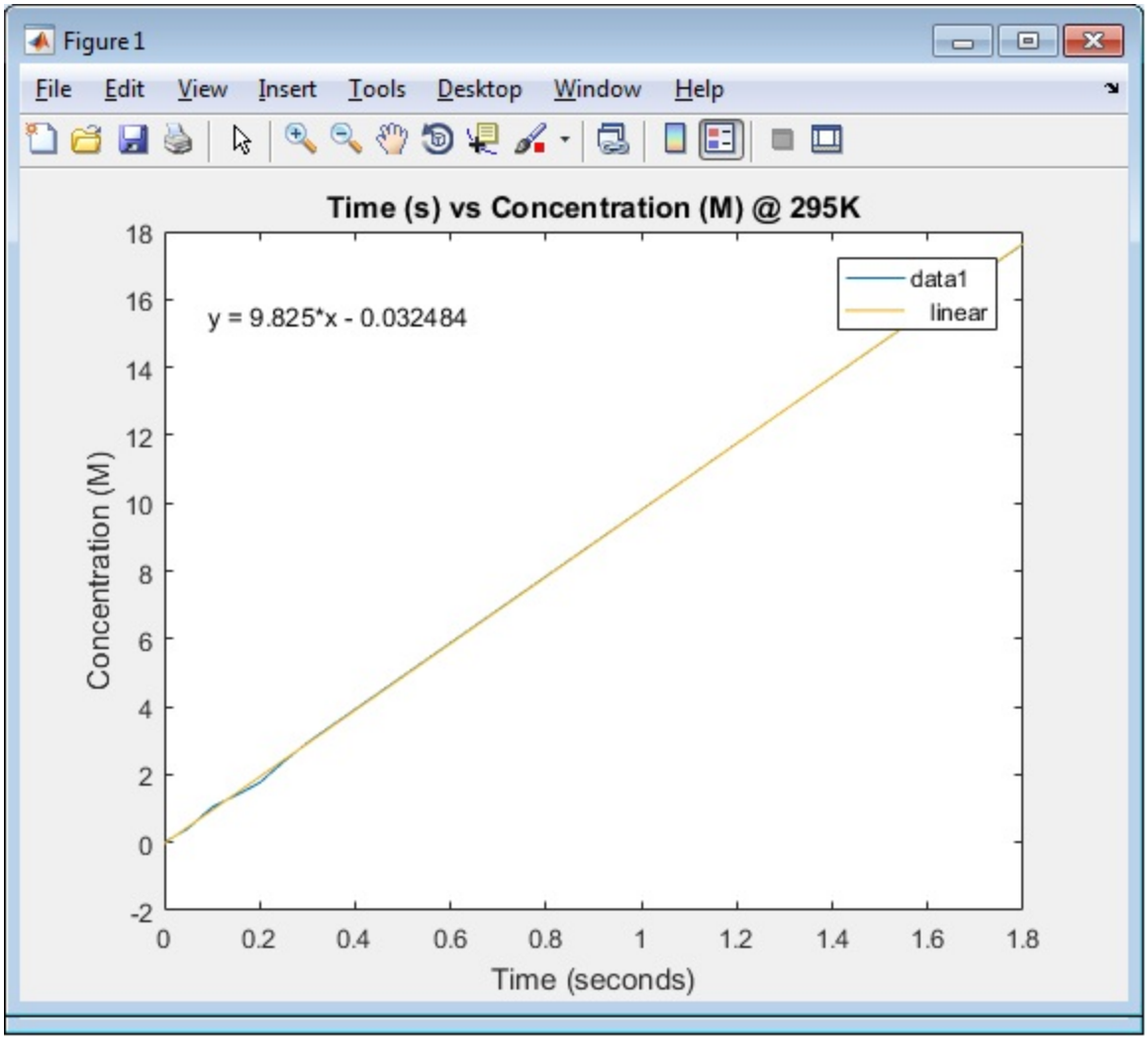


Figure 1
File Edit View Insert Tools Desktop Window Help
Time (s) vs Concentration (M) @ 295K
y = 9.825*x - 0.032484
data1
linear
Concentration (M)
Time (seconds)
18
16
14
12
10
8
6
4
2
0
-2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8

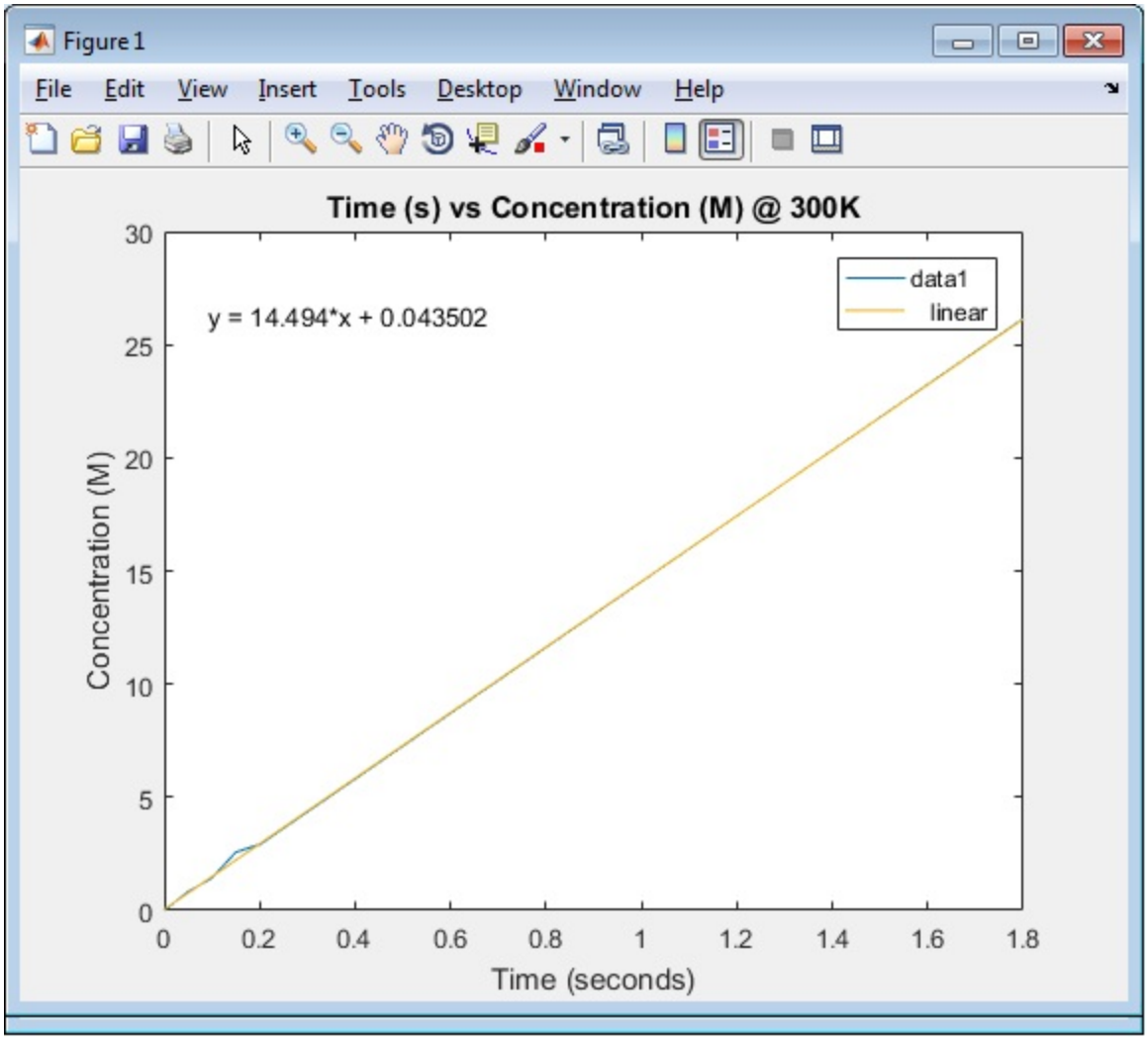
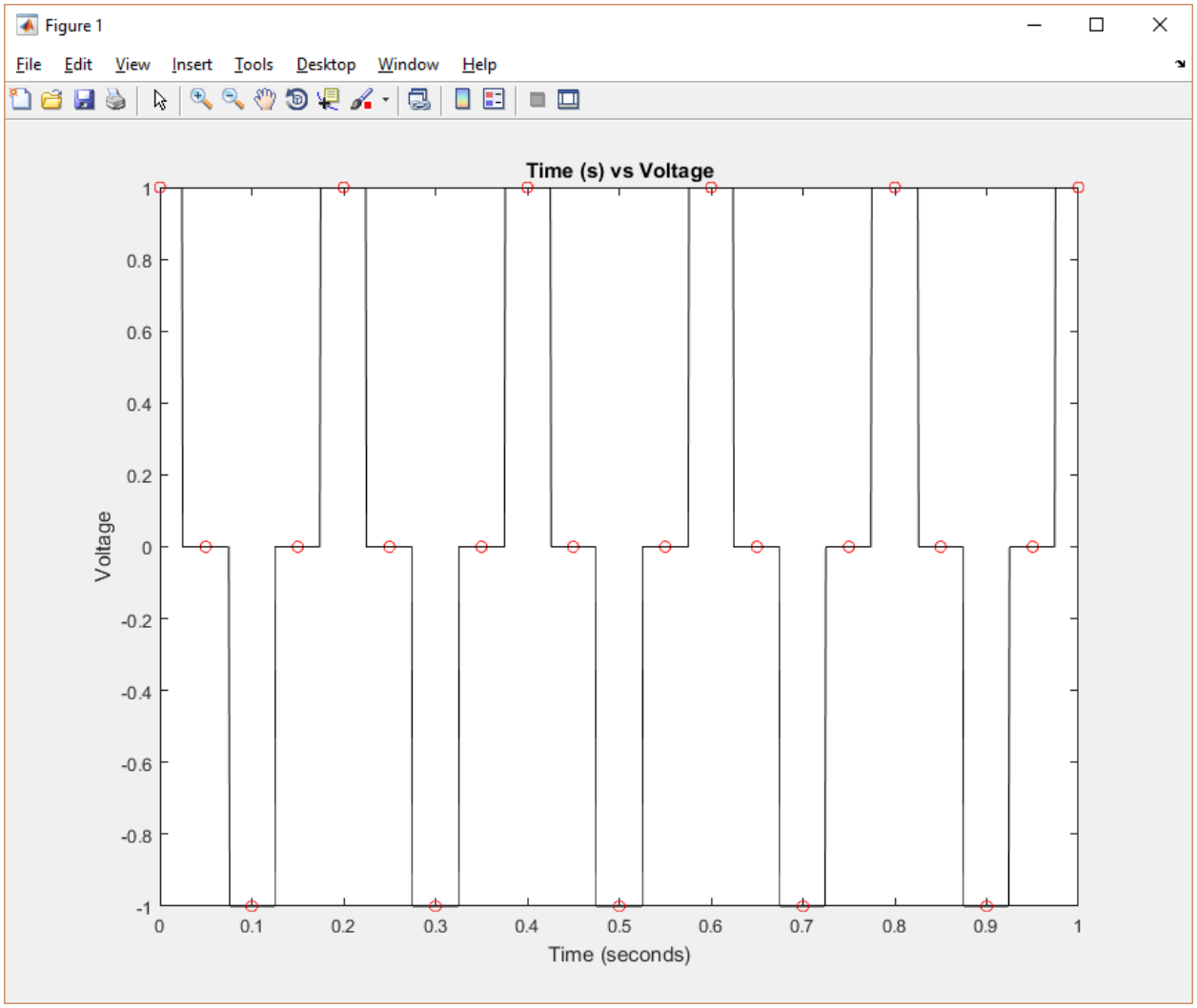


Figure 1
File Edit View Insert Tools Desktop Window Help
Time (s) vs Concentration (M) @ 300K
y = 14.494*x + 0.043502
data1
linear
Concentration (M)
Time (seconds)
0
5
10
15
20
25
30
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8

Problem 14a



Problem 14b

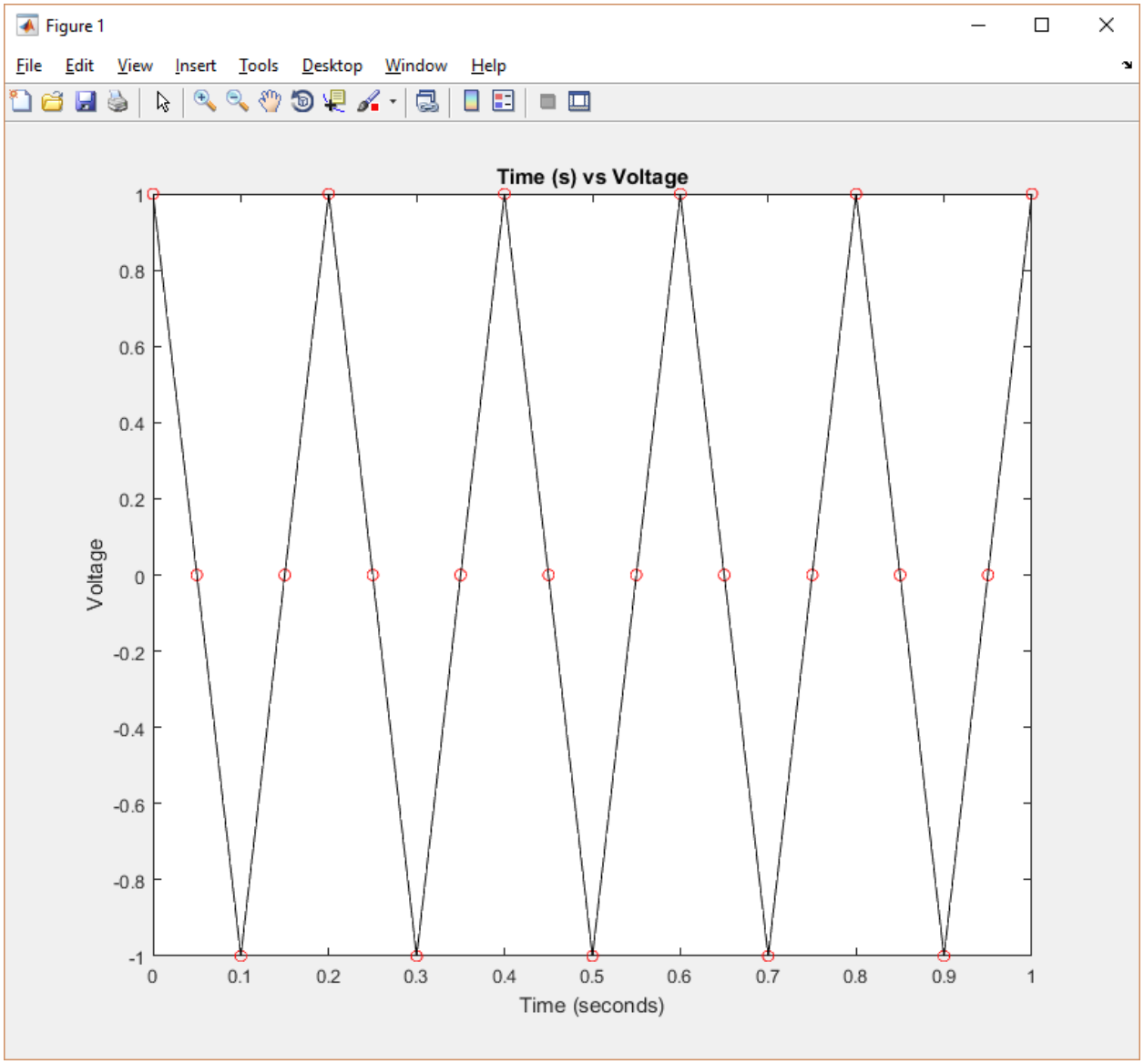
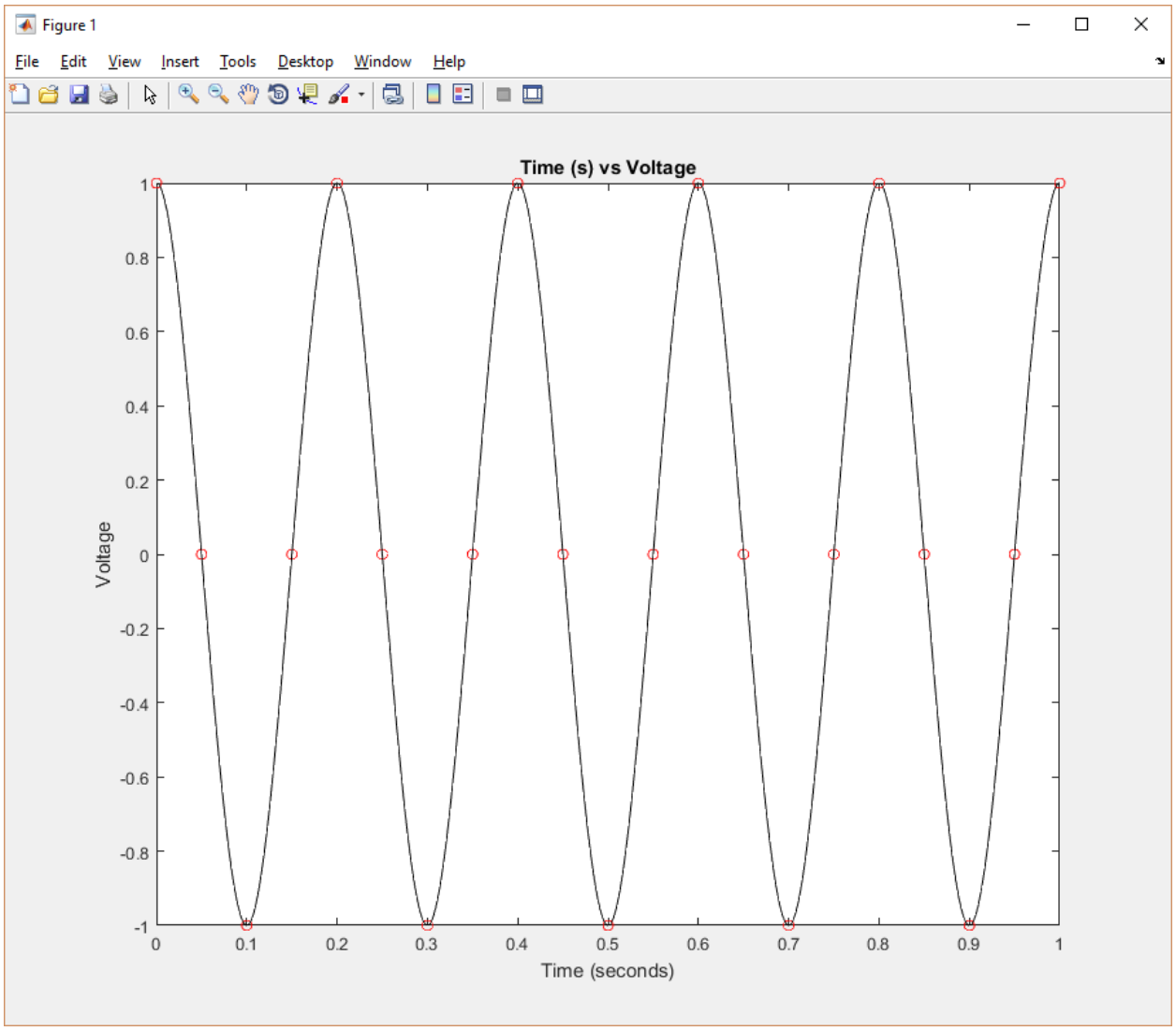


Figure 1
File Edit View Insert Tools Desktop Window Help
Time (s) vs Voltage
Voltage
Time (seconds)
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
-1
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

Problem 14c



Problem 14d: What kind of waveform does your plot in part (c) look like? Could you possibly have picked this up from looking at the original data points?

Plot looks like a Sin waveform. This isn't surprising because at repeating intervals of 0.1(s) the voltage is at it's maximum but it's sign is reversed.