OBSERVATION

SOURCE CODE

1.IMPULSE SIGNAL

File Edit View Debug Run Help

lab1.3 (2).m

```
clc;
clear all;
close all;

 t=-10:0.1:10;
for i=1:length(t)
  if(t(i)==0)
  x(i)=1;
  else
  x(i)=0;
  endif
endfor

subplot(2,1,1)
plot(t,x)
xlabel('time(t)')
ylabel('impulse(t)')
title('continuous time unit impulse signal kan075bct045')
axis([-10 10 -0.5 1.5])

n=-10:10
 for i=1:length(n)
  if(n(i)==0)
  y(i)=1;
  else
  y(i)=0;
  endif
endfor
subplot(2,1,2)
stem(n,y)
xlabel('time[n]')
ylabel('impulse[n]')
title('discrete time unit impulse signal kan075bct045')
axis([-10 10 -0.5 1.5])
```

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Command Window Variable Editor Editor

OUTPUT

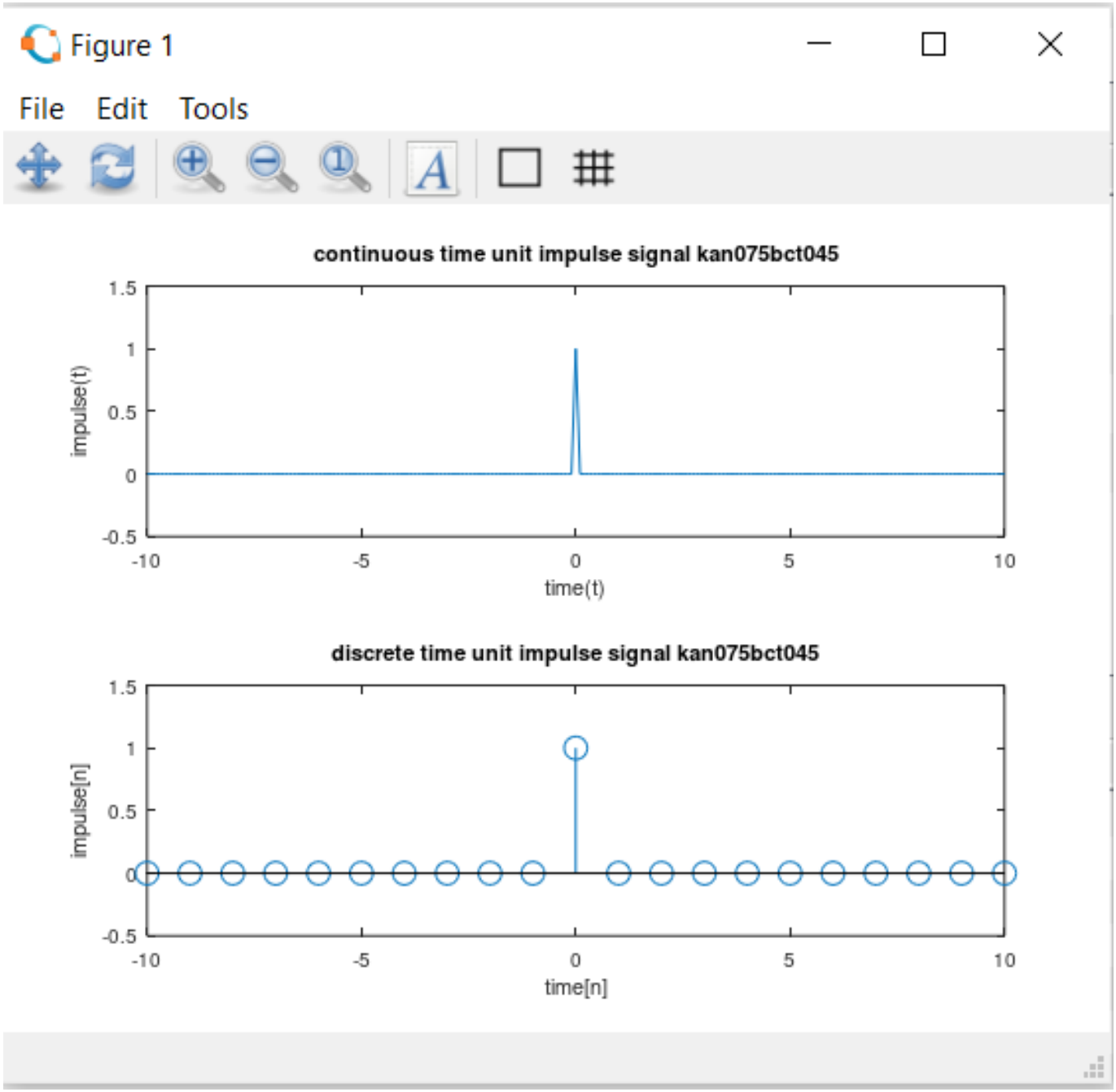
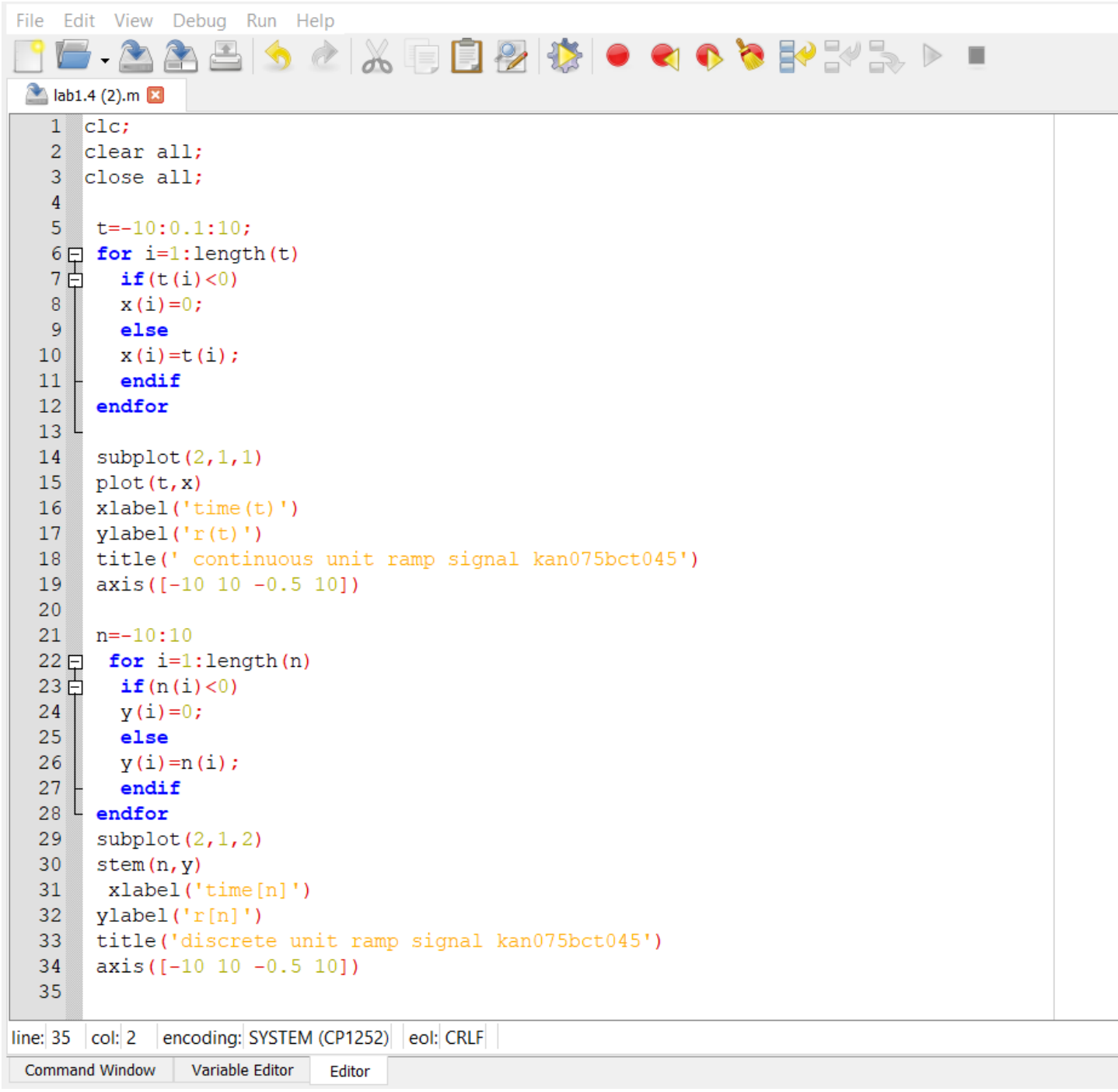


Figure 1
File Edit Tools
continuous time unit impulse signal kan075bct045
impulse(t)
1.5
1
0.5
0
-0.5
-10
-5
0
5
10
time(t)
discrete time unit impulse signal kan075bct045
impulse[n]
1.5
1
0.5
0
-0.5
-10
-5
0
5
10
time[n]

2.RAMP SIGNAL

SOURCE CODE



OUTPUT

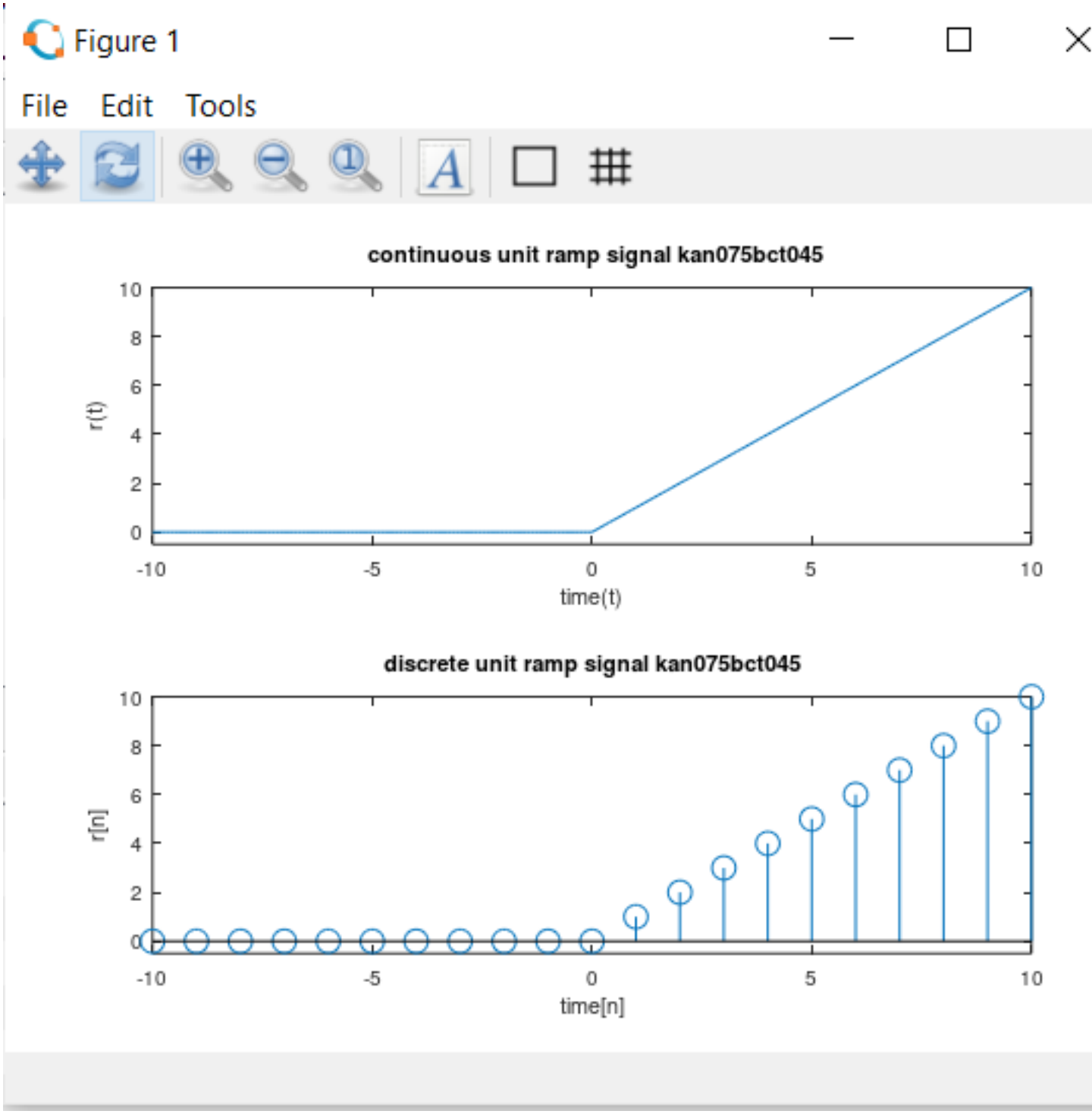
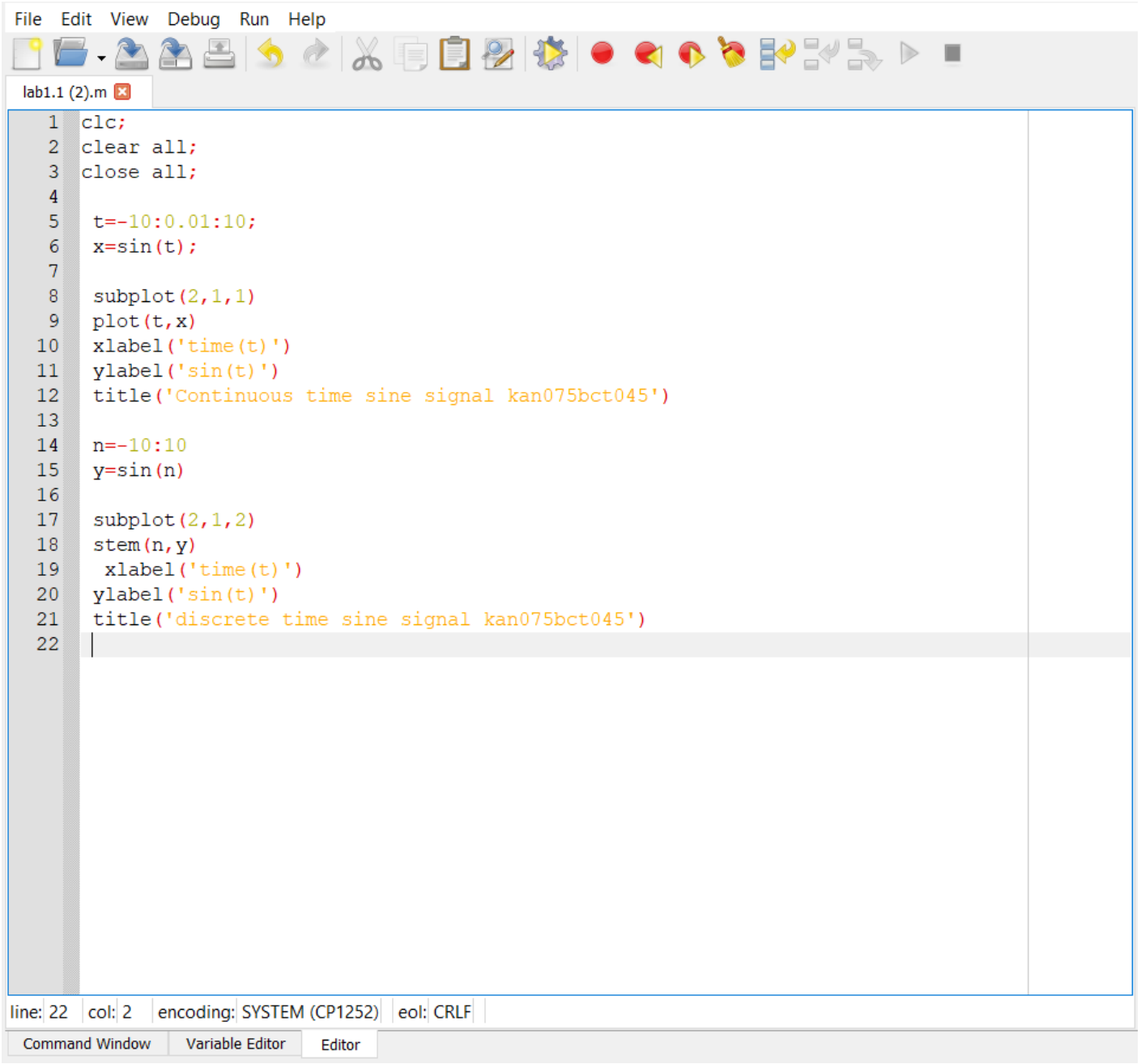


Figure 1
File Edit Tools
continuous unit ramp signal kan075bct045
r(t)
time(t)
discrete unit ramp signal kan075bct045
r[n]
time[n]

3.SINE SIGNAL

SOURCE CODE



OUTPUT

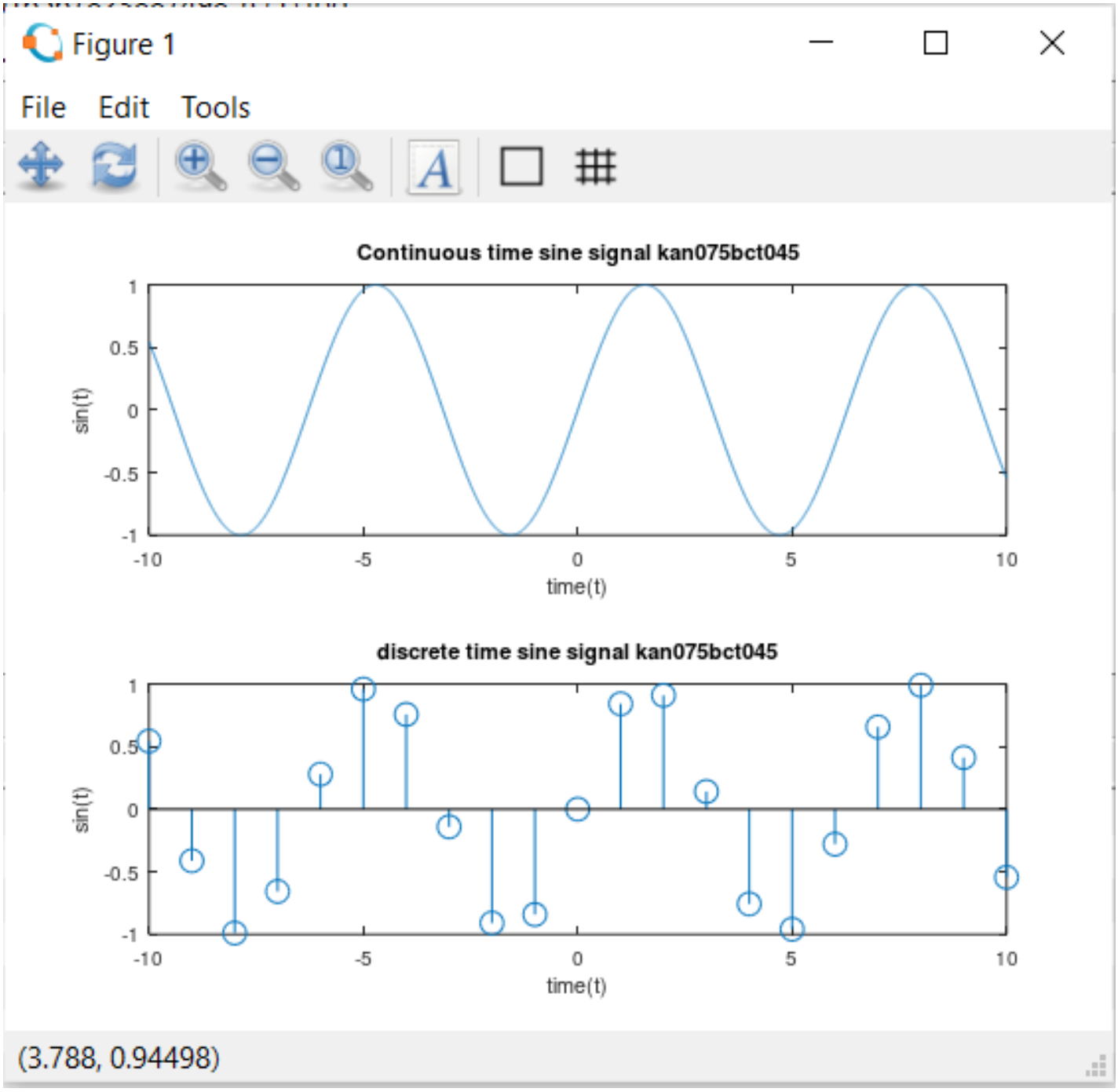
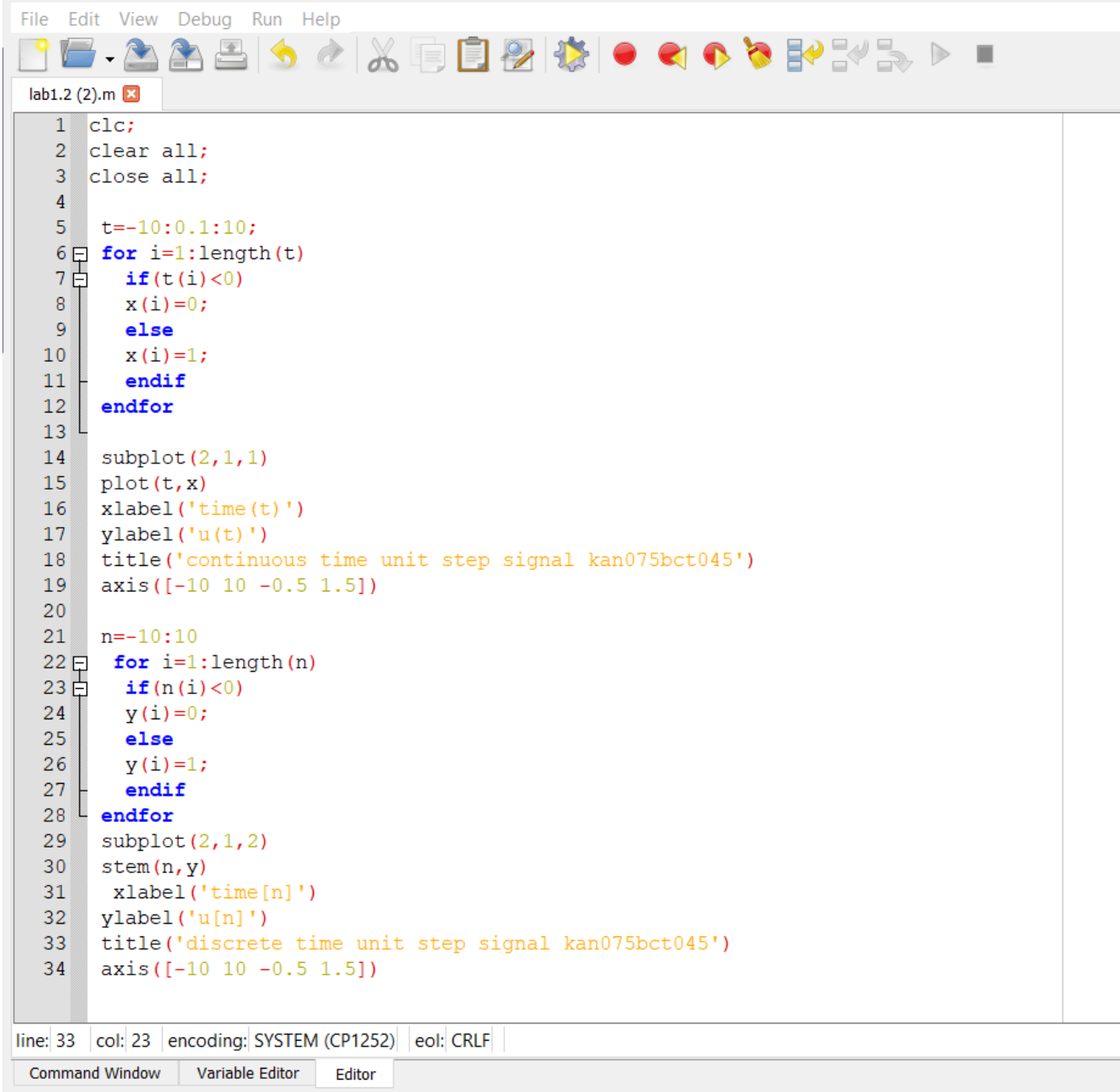


Figure 1
File Edit Tools
Continuous time sine signal kan075bct045
sin(t)
time(t)
discrete time sine signal kan075bct045
sin(t)
time(t)
(3.788, 0.94498)

4.STEP SIGNAL

SOURCE CODE



OUTPUT

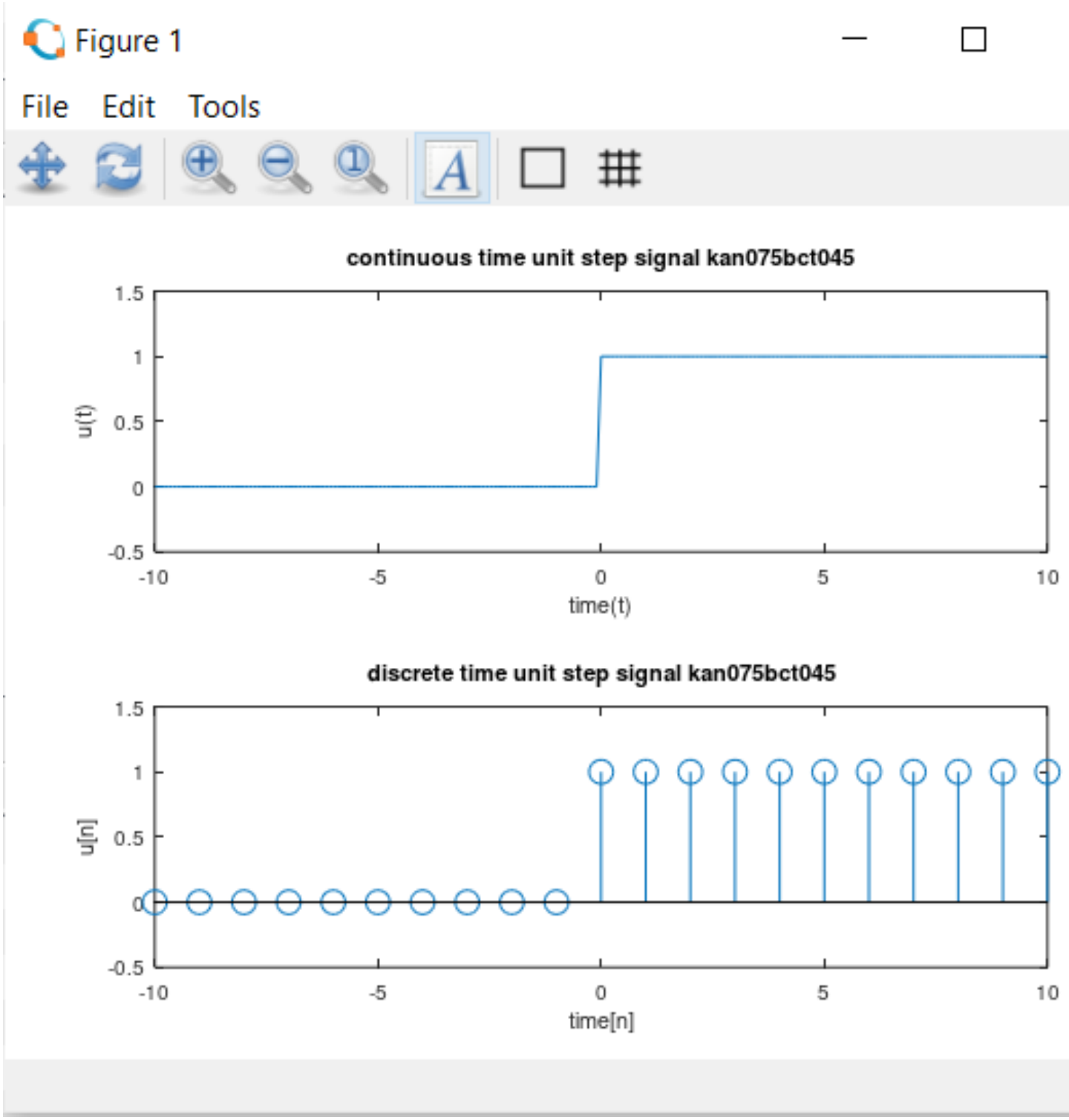


Figure 1
File Edit Tools
continuous time unit step signal kan075bct045
u(t)
time(t)
discrete time unit step signal kan075bct045
u[n]
time[n]

DISCUSSION AND CONCLUSION

From the lab we learned about four signal i.e. sine,step,impulse and ramp.To simulate the code we used octave ide and we got the out from the ide.

At first we code for the signal to generate continuous and discrete signals.We found output with the help x=sin(t) and plot and subplot function.We also used step function for discrete signals because it plots signal in different points.In similar way we code the program for three another signals and got desired output.In step signal we use loop condition for finding amplitude.Similary we use loop for impulse and ramp signals.

Hence from this lab session we learned about types of signals and learned their corresponding continuous and discrete signal.In this way we conclude our lab session.