ID: 20-42277-1

Lab report 1

1(a)

A=2; B=0;

C=4; D=2;

E=2; F=7;

G=7; H=1;

A1=20;

A2=71;

j1=27;

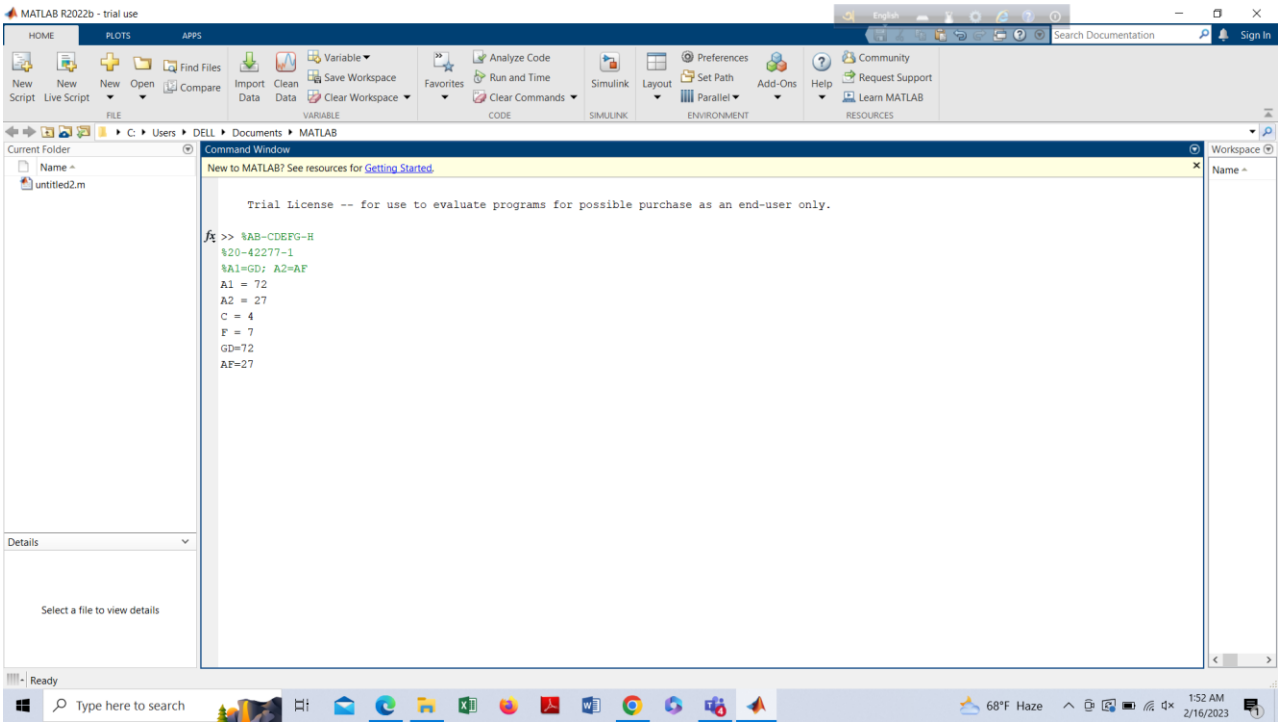
j2=30;

j1=27*(pi/1

80)

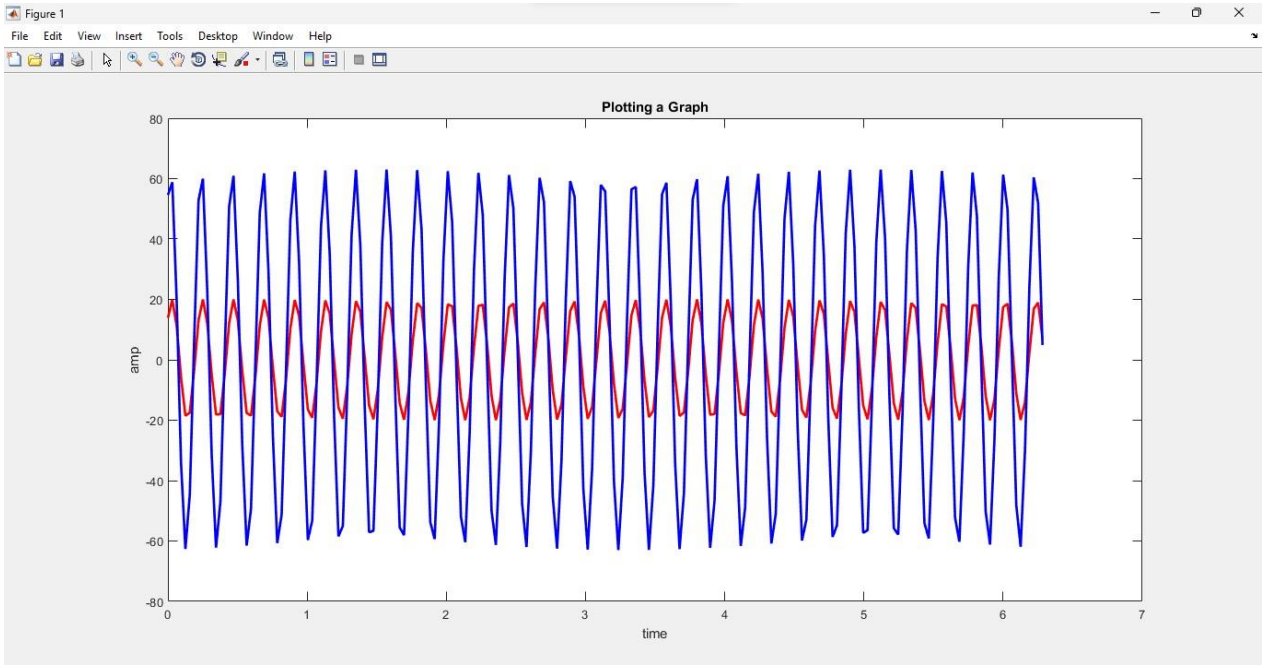
j2=30*(pi/1

80)



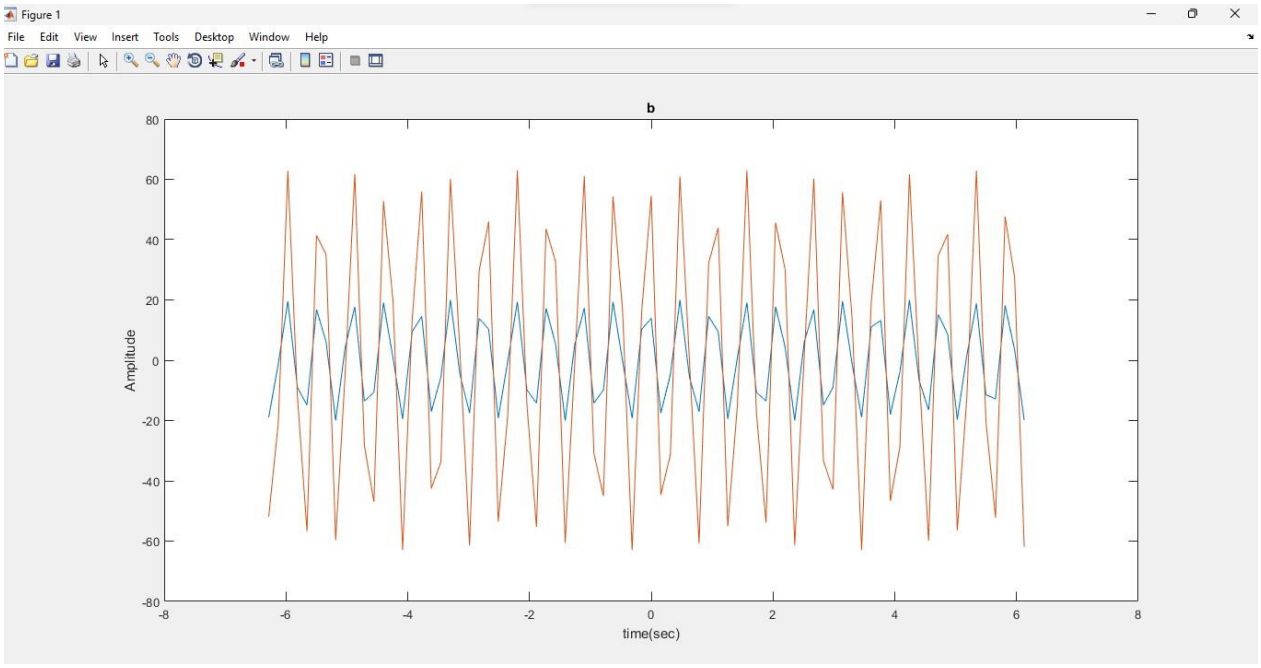
1(b)

```
A1=20;
A2=71;
j1=27*(pi/180);
j2=30*(pi/180);
t=0:pi/100:2*pi;
x1=A1*cos((2*pi*4227*t)+j1);
plot(t,x1,'r','linewidth',2);
hold on;
x2=A2*cos((2*pi*4227*t)+j2);
plot(t,x2,'b','linewidth',2);
hold on;
title('Plotting a Graph');
xlabel('time')
```



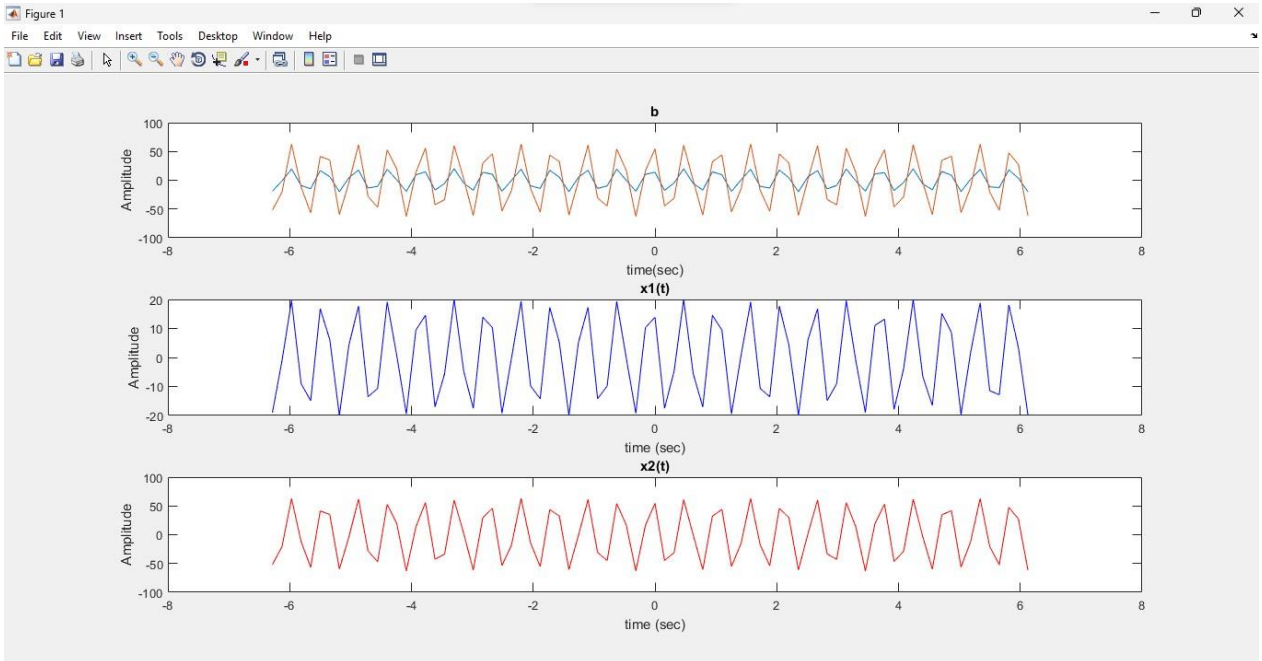
1(c)

```
clc;
close all;
clear all;
A1=20;
A2=71;
j1=27*(pi/180);
j2=30*(pi/180);
t= -2*pi:pi/20:2*pi-pi/20;
x1_t=A1*cos((2*pi*4227*t)+j1);
x2_t=A2*cos((2*pi*4227*t)+j2);
plot(t,x1_t,t,x2_t)
title('b')
xlabel('time(sec)')
ylabel('Amplitude')
```



1(d)

```
clc;
close all;
clear all;
A1=20;
A2=71;
j1=27*(pi/180);
j2=30*(pi/180);
t= -2*pi:pi/20:2*pi-pi/20;
x1_t=A1*cos((2*pi*4227*t)+j1);
x2_t=A2*cos((2*pi*4227*t)+j2);
subplot(3,1,1)
plot(t,x1_t,t,x2_t)
title('b')
xlabel('time(sec)')
ylabel('Amplitude')
subplot(3,1,2)
plot(t,x1_t,'b')
xlabel('time (sec)')
ylabel('Amplitude')
title('x1(t)')
subplot(3,1,3)
plot(t,x2_t,'r')
xlabel('time (sec)')
ylabel('Amplitude')
title('x2(
```




```
t)')
```

1(e)

```
clc;
close all;
clear all;
A1=20;
A2=71;
j1=27*(pi/180);
j2=30*(pi/180);
t= -2*pi:pi/40:2*pi-pi/40;
x1_t=A1*cos((2*pi*4227*t)+j1);
x2_t=A2*cos((2*pi*4227*t)+j2);
x3_t=x1_t+x2_t;
subplot(3,1,1)
plot(t,x1_t,'b')
xlabel('time (sec)')
ylabel('Amplitude')
title('x1(t)')
subplot(3,1,2)
title('x1(t)')
subplot(3,1,2)
plot(t,x2_t,'r')
xlabel('time (sec)')
ylabel('Amplitude')
title('x2(t)')
subplot(3,1,3)
plot(t,x3_t,'g')
ylabel('Amplitude')
xlabel('Time (sec)')
ylabel('Amplitude')
title('x3(t)=x1(t)+x2(t)')
```