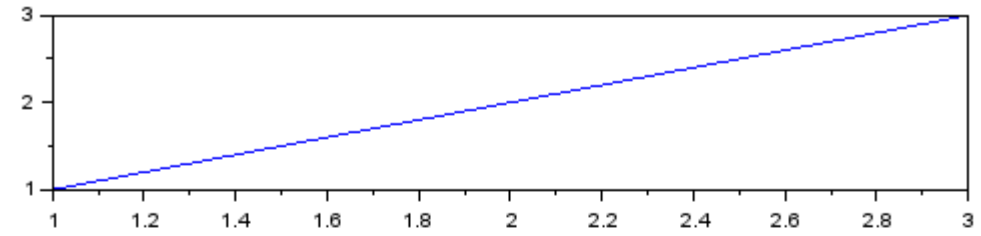
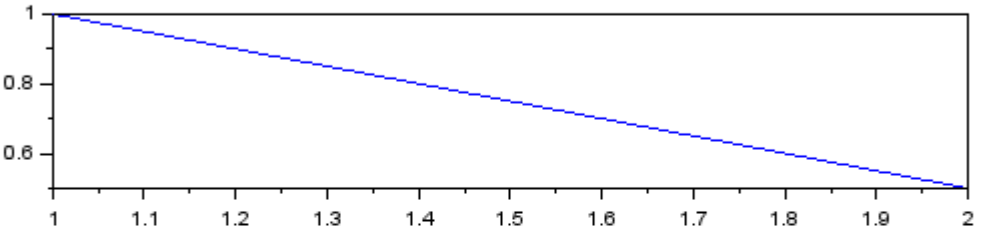
Experiment 4

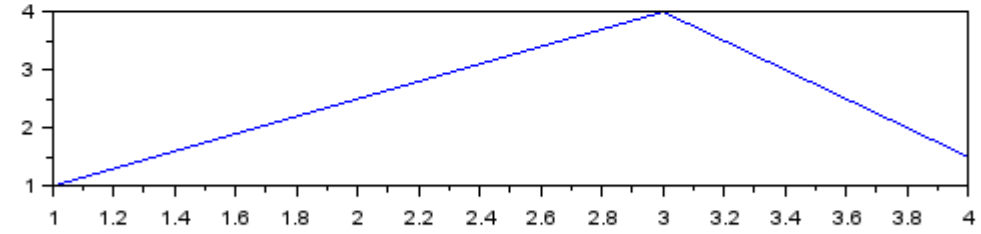
AIM : to plot convolution of two signals

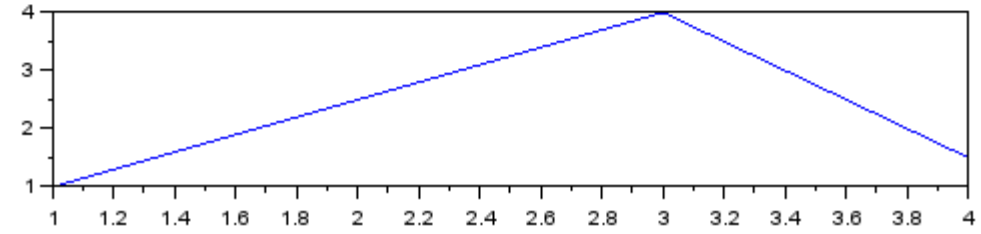
Code:

```
clc
clear
function s=con(f, g, t)
    s = 0;
    for i = 1:length(f)
        if t-i+1>0 if t-i+1 <= length(g)
                then s = s+f(i)*g(t-i+1);
        end end
    end
endfunction

x = 0:0.1:2*%pi
f = [1,2,3]//sin(x)
g = [1,0.5]//cos(x)

h = zeros(1,length(f)+length(g)-1);

for i = 1:length(h)
    h(i) = con(f,g,i);
end

subplot(411)
plot(f)
subplot(412)
plot(g)
subplot(413)
plot(h)
subplot(414)
plot(conv(f,g))
```


3
2
1
1
1.2
1.4
1.6
1.8
2
2.2
2.4
2.6
2.8
3


1
0.8
0.6
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2


4
3
2
1
1
1.2
1.4
1.6
1.8
2
2.2
2.4
2.6
2.8
3
3.2
3.4
3.6
3.8
4


4
3
2
1
1
1.2
1.4
1.6
1.8
2
2.2
2.4
2.6
2.8
3
3.2
3.4
3.6
3.8
4