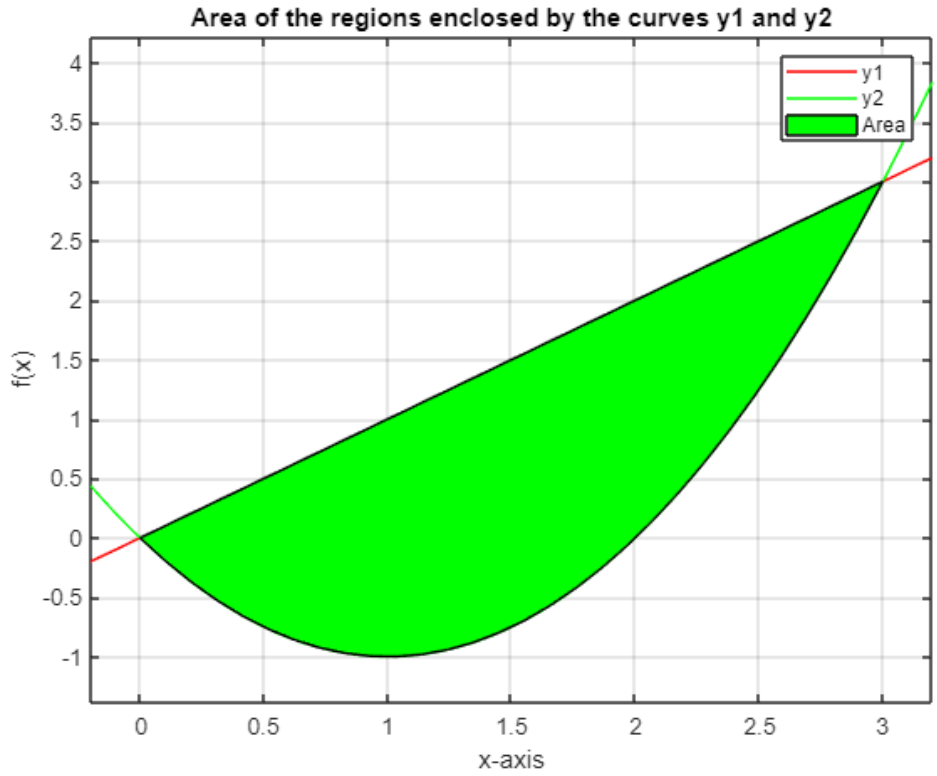
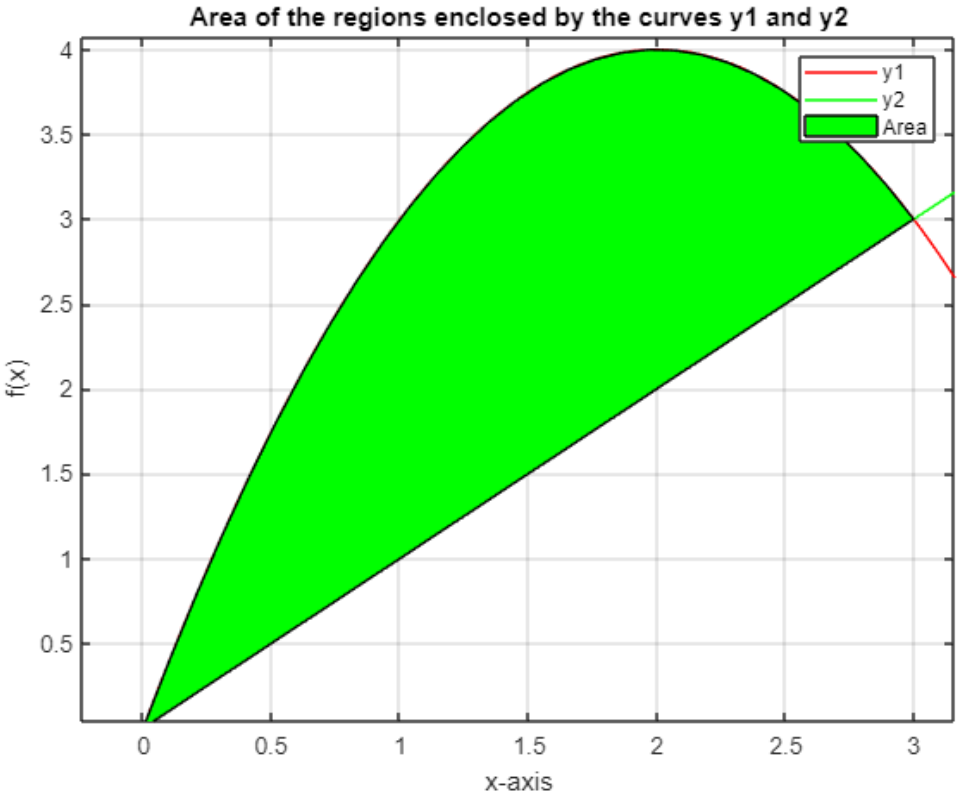
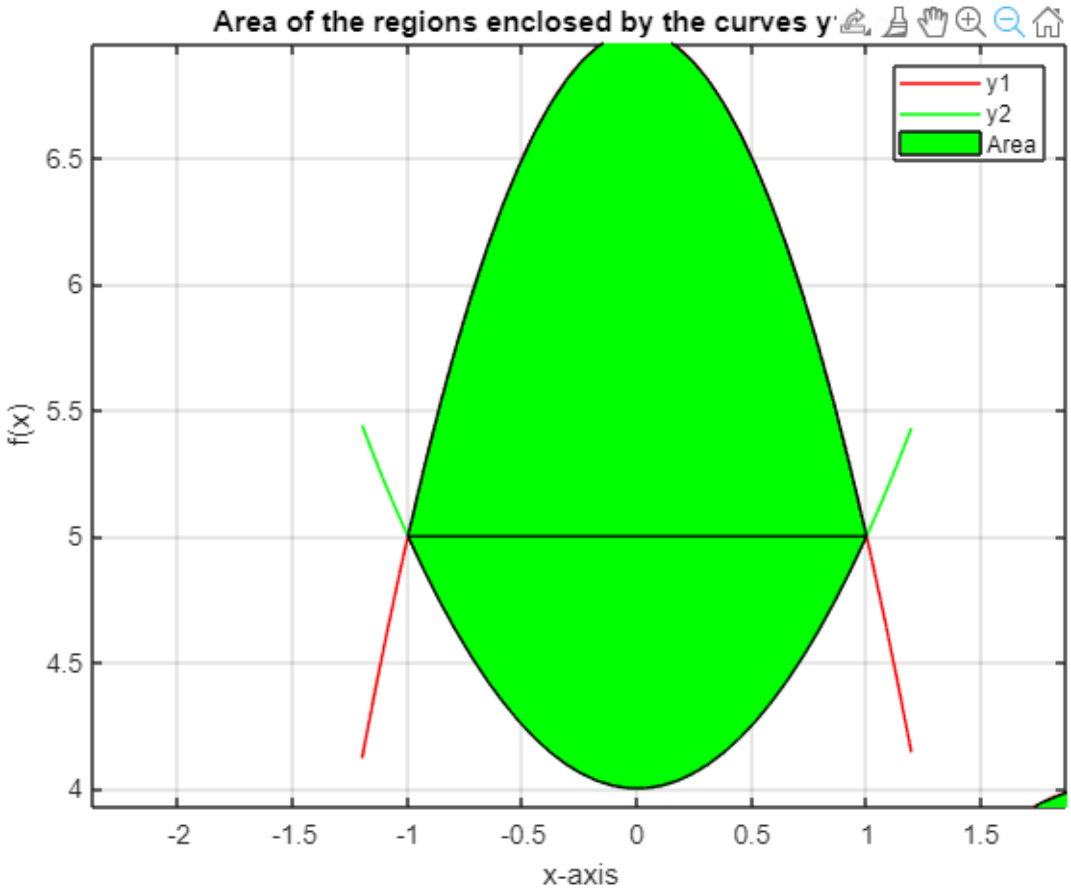
```
%Lab 4
% Definite integral and its application

syms x real
y1 = input(‘f1: ’)
y2 = input(‘f2: ’)
t = solve(y1,y2);
t = double(t)
A = int(y1-y2,t(1),t(2))

D = [t(1)-0.2,t(2)+0.2]
ez1 = ezplot(y1,D)
set(ez1,’colour’,’red’)
hold on
set(ez2,’colour’,’red’)

xlabel(‘f(x)’)
title('Area of the regions enclosed by the curves y1 and y2')xv =
linspace(t(1), t(2), 30);
y1v = subs(y1, x, xv);
y2v = subs(y2, x, xv);
fill(xv, y1v, 'green')
fill(xv, y2v, 'green')
legend('y1', 'y2', 'Area')
grid on
```

Output Window:






Area of the regions enclosed by the curves y
y1
y2
Area
6.5
6
5.5
5
4.5
4
f(x)
-2
-1.5
-1
-0.5
0
0.5
1
1.5
x-axis