

```
1 function [dWdt] = Tobebeast(t,W)
2
3 dWdt(1)=- (15/500)*W(1)+ (5/1000)*W(2)+1;
4 dWdt(2)=(15/500)*W(1)-(18/1000)*W(2)+ (3/400)*W(3);
5 dWdt(3)=(13/1000)*W(2)-(13/400)*W(3);
6
7 dWdt=dWdt';
8 end
```

```
1 commandwindow
2 clear
3 clc
4 close all
5
6 lenthos= [0:1:1200];
7 initials=[0 0 0];
8 [t,Q]= ode45(@Tobebeast,lenthos,initials);
9
10 figure(1)
11 subplot(3,1,1)
12 plot(t,Q(:,1),'go-')
13 xlabel('Time(mins)')
14 ylabel('Volume (litres)')
15 legend('Tank 1', 'Location', 'South')
16 grid on
17 axis tight
18 title('Fig 1:dynamic responses of the tanks')
19
20 subplot(3,1,2)
21 plot(t,Q(:,2),'b*--')
22 xlabel('Time(mins)')
23 ylabel('Volume (litres)')
24 legend('Tank 2', 'Location', 'South')
25 grid on
26 axis tight
27
28 subplot(3,1,3)
29 plot(t,Q(:,3),'r+--')
30 xlabel('Time(mins)')
31 ylabel('Volume (litres)')
32 legend('Tank 3', 'Location', 'South' )
33 grid on
34 axis tight
```

Fig 1:dynamic responses of the tanks

