Function: plot_sf

Plots the Shear, Moment, Torque and M/I diagrams. Parameters - singularity functions for T,V,M and M/I; x is the position vector

Code

```
function plot_sf = plot_sf(T,V,M,M_over_I,x)
 % Setting up
 L = 40; % cm, shaft length

 % Shear Diagram
 figure(1)
 subplot(2,2,1)
 plot(x,V)
 axis([0 L min(V)-50 max(V)+50]) % for making the plots more appealing
 title('Shear Diagram')
 ylabel('Shear (N)')
 xlabel('Position on shaft (cm)')

 % Torque
 subplot(2,2,2)
 plot(x,T, 'g')
 axis([0 L -1 max(T)+1])
 title('Torque Diagram')
 ylabel('Torque (N*m)')
 xlabel('Position on shaft (cm)')

 % Moment Diagram
 subplot(2,2,[3,4])
 plot(x,M,'r')
 axis([0 L -2 max(M)+2])
 title('Moment Diagram')
 ylabel('Moment (N*m)')
 xlabel('Position on shaft (cm)')

 % M over I diagram
 figure(2)
 plot(x,M_over_I,'c')
 title('Moment over I Diagram')
 ylabel('M/I (N/m^3)')
 xlabel('Position on shaft (cm)')
end
```

```
Error using plot_sf (line 15)
Not enough input arguments.
```

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