%Today's topic is convolution and Fourier Series

x=[0.5 0.5 0.5];

h=[3 2 1]

h =

 3 2 1

y=conv(x,h);

y=conv(x,h)

y =

 1.5000 2.5000 3.0000 1.5000 0.5000

n=[0:length(y)-1]

n =

 0 1 2 3 4

stem(n,y)

title('Convolution Output')

xlabel('====>n')

ylabel('y[n]')

%Starting index of y[n]=starting index of x[n]+starting index of h[n]

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%Ending index of y[n]=Ending index of x[n]+ Ending index of h[n]

%Length of Covolution sum = Length of x[n]+ Length of h[n]-1

%If we have two signals x and h and we've to find convolution of both then

%Formula used to convolve both is conv(x,h)

%Fourier Series in Matlab

%According to its theory any periodic signal can be sub divided into more signals

%Just like a Square wave can be expressed in terms of different sine waves

% Harmonic of a wave is The component of a signal that is an intergral %multiple of the findamental frequency

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