**Linear convolution using circular convolution**

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clc

clear all;

prompt = 'Enter x1n';

x1n = input(prompt);

prompt = 'Enter x2n';

x2n = input(prompt);

%Linear Convolution

lin\_conv = conv(x1n,x2n);

l = length(x1n);

m = length(x2n);

n = l+m-1;

%Linear convolution using circular convolution

x1n = [x1n, zeros(1,m-1)];

x2n = [x2n, zeros(1,l-1)];

lin\_using\_circ\_conv = cconv(x1n,x2n,n);

display(lin\_using\_circ\_conv);

display(lin\_conv);

Enter x1n[1,2,3,4]

Enter x2n[4,3,2,1]

lin\_using\_circ\_conv =

4.0000 11.0000 20.0000 30.0000 20.0000 11.0000 4.0000

lin\_conv =

4 11 20 30 20 11 4