

Muhammet Kayra Bulut No: 20011901

Kodum

```
clear all
clc

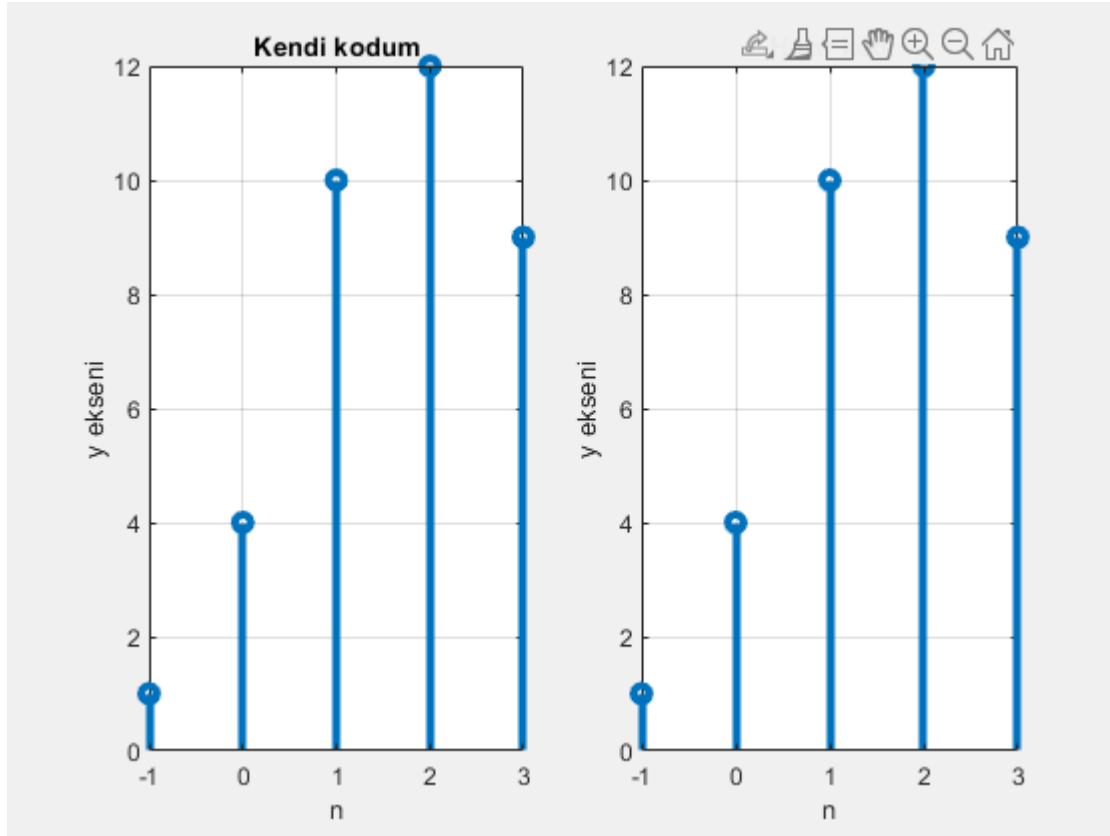
n=input('Lutfen ilk isaretin eleman sayisini giriniz');
k=input('Lutfen ilk isaretin ilk elemaninin yatay degerini giriniz');
m=input('Lutfen ikinci isaretin eleman sayisini giriniz');
l=input('Lutfen ikinci isaretin ilk elemaninin yatay degerini giriniz');

for i=1:1:n
    fprintf('Lutfen ilk isaretin %d elemanini giriniz',i);
    x(i)=input('');
end
for i=1:1:m
    fprintf('Lutfen ikinci isaretin %d elemanini giriniz',i);
    y(i)=input('');
end
yln=conv(x,y);
for i=1:1:m+n-1
    if i>m
        y(i)=0;
    end
    if i>n
        x(i)=0;
    end
end
cks=k+1:k+1+m+n-2;
for i=1:1:m+n-1
    grs(i)=0;
end
for i=1:1:m+n-1
    for j=1:1:i
        if j<=m && i-j+1<=n
            grs(i)=grs(i)+x(i-j+1)*y(j);
        end
    end
end

figure(1);
subplot(1,2,1);
stem(cks,grs,'Linewidth',3);
grid on
xlabel('n');
ylabel('y eksenini');
title('Kendi kodum');
subplot(1,2,2);
stem(cks,yln,'Linewidth',3);
grid on
xlabel('n');
ylabel('y eksenini');
title('Hazır kod');
cat(1,x,y,grs,yln)
```

1. Örnek

$x[1,2,3]$ $y[1,2,3]$

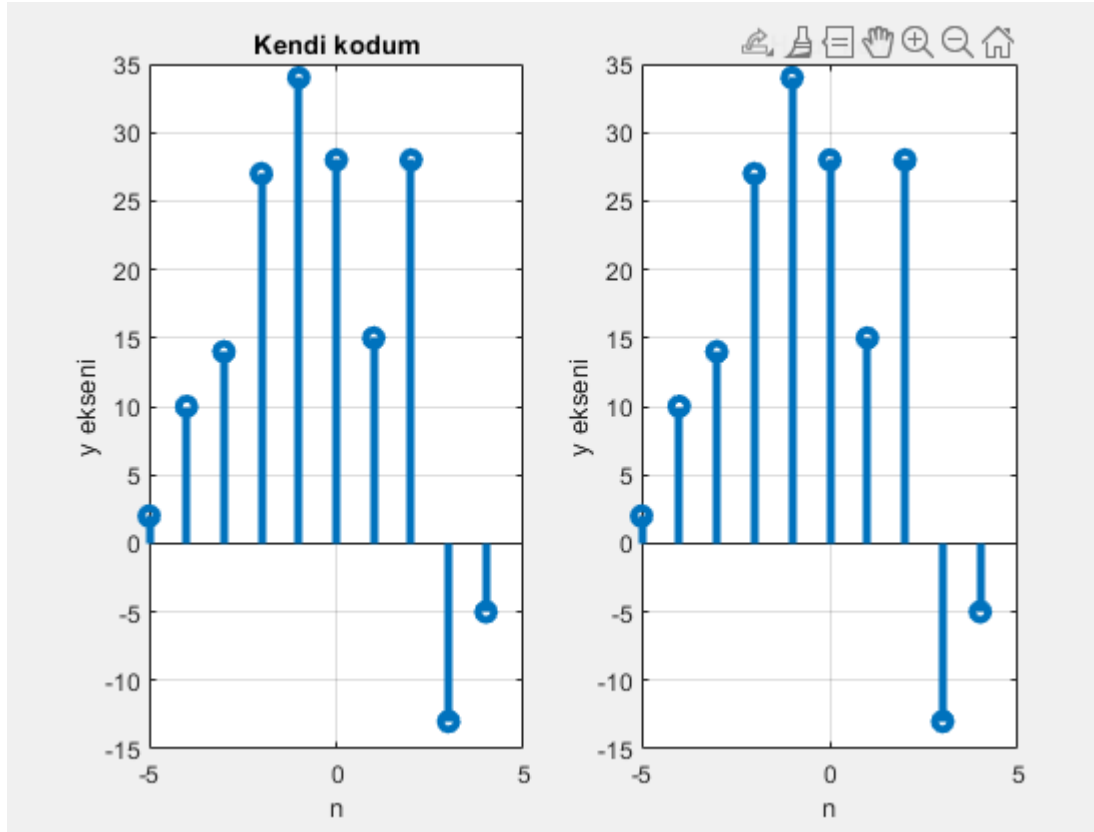


ans =

| | | | | | |
|-----------|----------|----------|----|---|---|
| x[n] | <u>1</u> | <u>2</u> | 3 | 0 | 0 |
| y[n] | <u>1</u> | <u>2</u> | 3 | 0 | 0 |
| y[n]*x[n] | <u>4</u> | 10 | 12 | 9 | |
| y[n]*x[n] | 4 | 10 | 12 | 9 | |

2. Örnek

$x[2,4,6,7,5,-3,-1]$ $y[1,3,-2,5]$

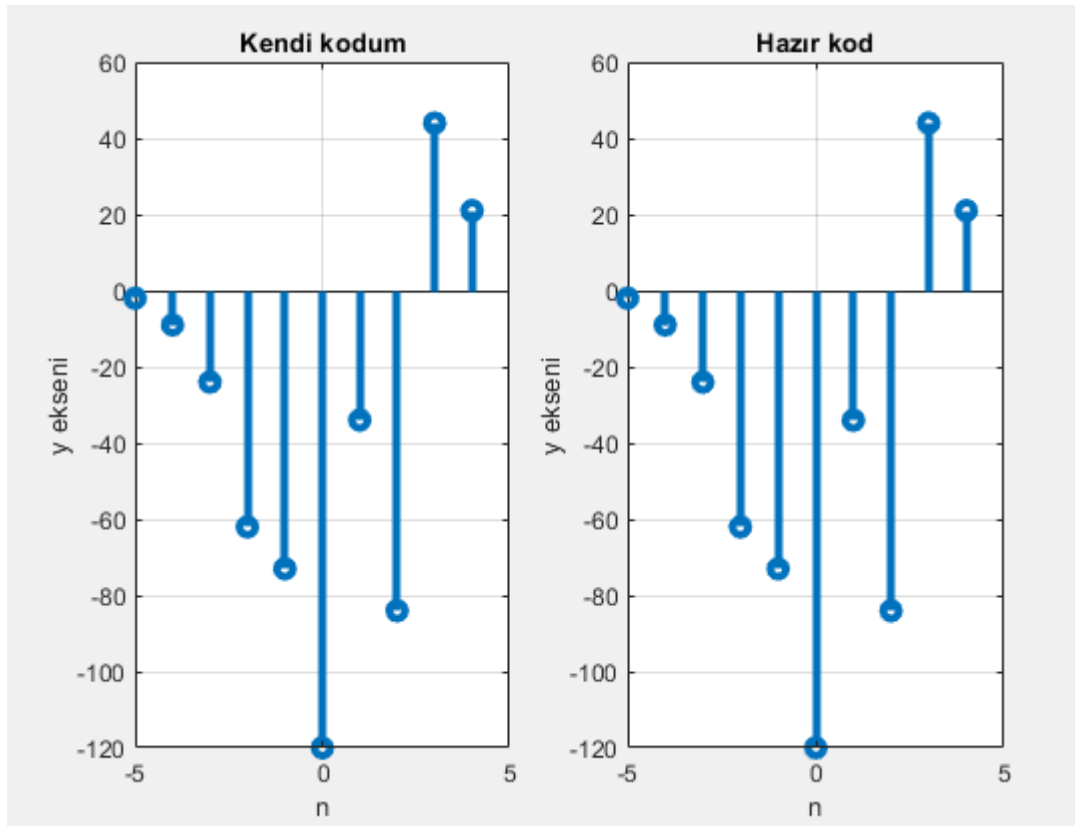


ans =

| | | | | | | | | | | |
|-------------|---|----|----------|----------|----|-----------|----|----|-----|----|
| $x[n]$ | 2 | 4 | <u>6</u> | <u>7</u> | 5 | -3 | -1 | 0 | 0 | 0 |
| $y[n]$ | 1 | 3 | -2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| $x[n]*y[n]$ | 2 | 10 | 14 | 27 | 34 | <u>28</u> | 15 | 28 | -13 | -5 |
| $x[n]*y[n]$ | 2 | 10 | 14 | 27 | 34 | <u>28</u> | 15 | 28 | -13 | -5 |

3. Örnek

$x[1,3,5,17,2,21]$ $y[-2,-3,-5,2,1]$



ans =

| | | | | | | | | | | |
|-----------|----------|----|-----|-----|-----|-------------|-----|-----|----|----|
| x[n] | <u>1</u> | 3 | 5 | 17 | 2 | <u>21</u> | 0 | 0 | 0 | 0 |
| y[n] | -2 | -3 | -5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| x[n]*y[n] | -2 | -9 | -24 | -62 | -73 | <u>-120</u> | -34 | -84 | 44 | 21 |
| x[n]*y[n] | -2 | -9 | -24 | -62 | -73 | <u>-120</u> | -34 | -84 | 44 | 21 |