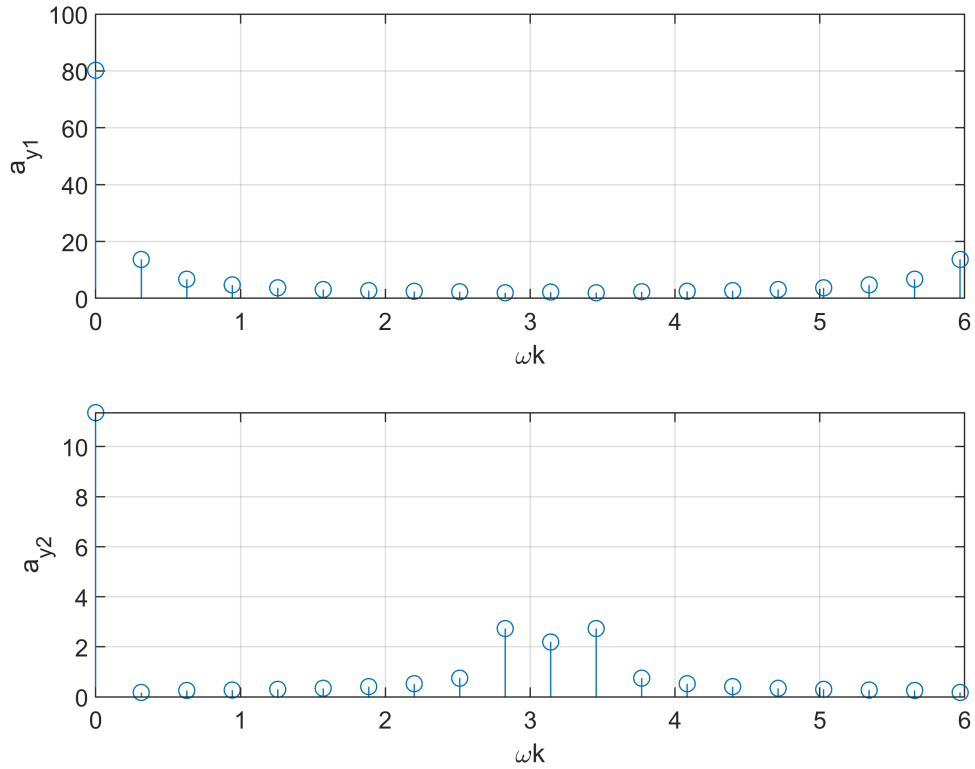
```
a_x=[0 0.75 zeros(1,7) -0.5 0 -0.5 zeros(1,7) 0.75];
x_20=20*ifft(a_x)
```

```
x_20 = 1×20
    0.5000    2.3776    0.4045    1.4695    0.1545   -0.0000   -0.1545   -1.4695 ···
```

```
omegak=k*pi/10;
n=-20:99;
x=[x_20 x-20 x_20 x-20 x_20 x-20];
y1=filter(b1,a1,x);
y2=filter(b2,a2,x);
y1_20=y1(21:40);
y2_20=y2(21:40);
a_y1=(1/20)*fft(y1_20);
a_y2=(1/20)*fft(y2_20);
subplot(2,1,1),stem(omegak, abs(a_y1)),xlabel('\omegak'),ylabel('a_y_1'),grid;
subplot(2,1,2),stem(omegak, abs(a_y2)),xlabel('\omegak'),ylabel('a_y_2'),grid;
```




```
%these plots agree with my answers in Part(e)
```