

```
1  A = 0.3; %Amplitude
2  f0 = 300; %Frequenz in Hz
3  p = 0; %Phase
4  d = 3; %Dauer in s
5  fs = 22050; %Abtast Frequenz in Hz
6  vonx=0.0; %Plot Start x
7  bisx=0.01; %Plot Ende x
8  vony=-1; %Plot Start y
9  bisy=1; %Plot Ende y
10 %Definition der x Werte
11 x = 0:1/fs:d; % Array {Startwert, sekunde/abtastfrequenz, dauer}
12 xm = [0.1, 0.05, 0.05, 0.05, 0.2, 0.2, 0.05, 0.05, 0.05, 0.1];
13 xm_pi = [-1/3*pi, 1/3*pi, -1/4*pi, 2/3*pi, 0, 0, -2/3*pi, 1/4*pi, -1/3*pi,
14 1/3*pi];
15 m = [-14, -12, -10, -8, -1, 1, 8, 10, 12, 14];
16 signal_1=xm(1)*cos(2*pi*f0*m(1)*x+xm_pi(1));
17 signal_2=xm(2)*cos(2*pi*f0*m(2)*x+xm_pi(2));
18 signal_3=xm(3)*cos(2*pi*f0*m(3)*x+xm_pi(3));
19 signal_4=xm(4)*cos(2*pi*f0*m(4)*x+xm_pi(4));
20 signal_5=xm(5)*cos(2*pi*f0*m(5)*x+xm_pi(5));
21 signal_6=xm(6)*cos(2*pi*f0*m(6)*x+xm_pi(6));
22 signal_7=xm(7)*cos(2*pi*f0*m(7)*x+xm_pi(7));
23 signal_8=xm(8)*cos(2*pi*f0*m(8)*x+xm_pi(8));
24 signal_9=xm(9)*cos(2*pi*f0*m(9)*x+xm_pi(9));
25 signal_10=xm(10)*cos(2*pi*f0*m(10)*x+xm_pi(10));
26 y =
27 signal_1+signal_2+signal_3+signal_4+signal_5+signal_6+signal_7+signal_8+signal_9+signal_10;
28 %Definition y Werte
29
30 %Plot erstellen
31 subplot(1,1,1);
32 %Funktion auf Plot Zeichnen
33 stem(x,y);
34 %Plot Skalieren (0.1 = 10ms) x -> 0 bis 0.1 // y -> -0.4 bis 0.4
35 axis([vonx bisx vony bisy]);
36 %Ton Ausgabe
37 sound(y,fs);
```