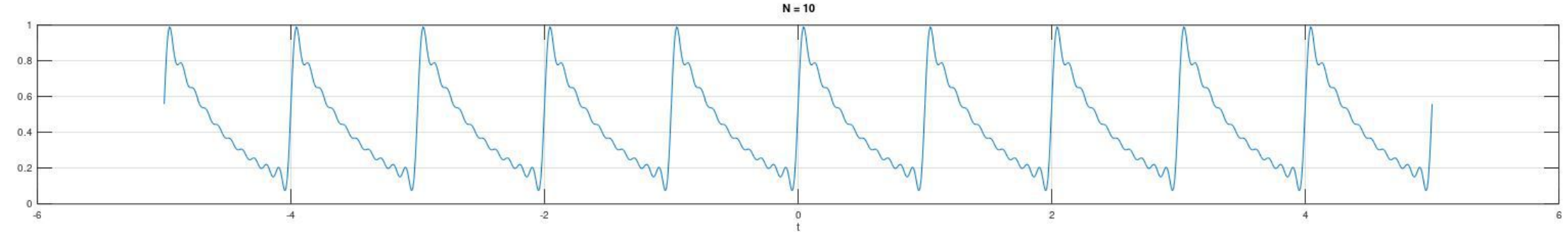
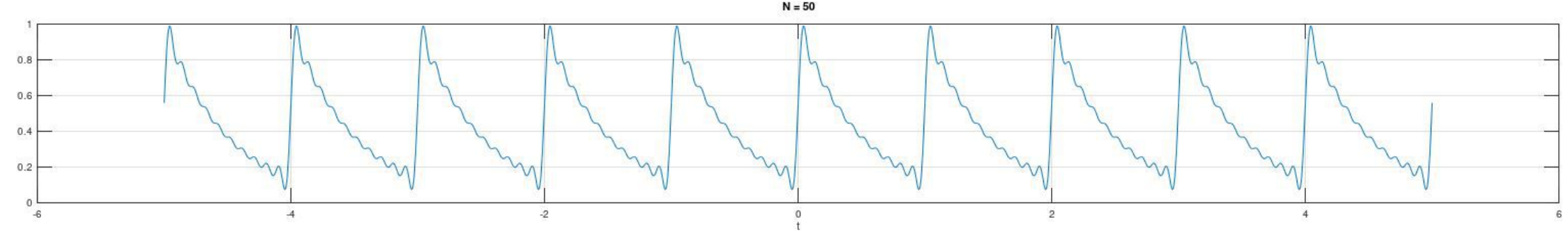
```
function fn = myfs(Dn,omega0,t)
  L=length(Dn);
  N = (L - 1)./2;
  negN = -1.*N;
  result = 0;
  for index = 1:L
    result += (Dn(index).*exp(j.*omega0.*negN.*t));
    negN++;
  endfor
  fn = result;
endfunction
```

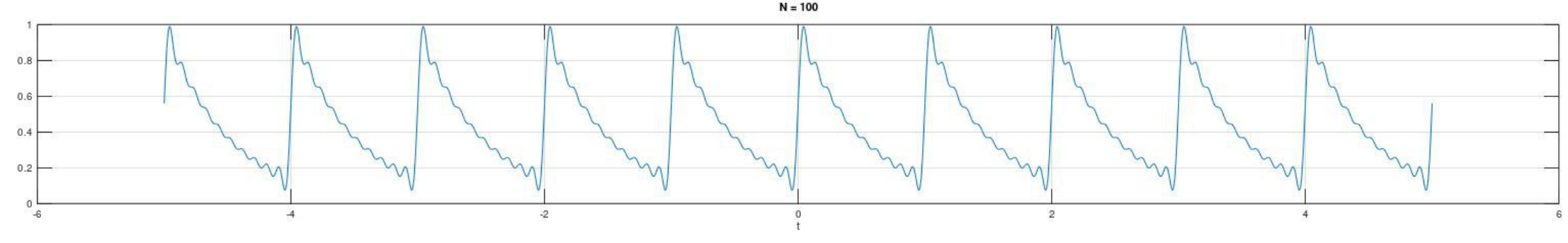
```
k=-10:1:10;
coeff = (exp(-2) - 1)./(-j.*2.*pi.*k - 2);
t=-5:0.01:5;
subplot(3,1,1);
plot(t,myfs(coeff,2.*pi,t)); grid on; xlabel('t'); title('N = 10');

subplot(3,1,2);
k=-50:1:50;
plot(t,myfs(coeff,2.*pi,t)); grid on; xlabel('t'); title('N = 50');

subplot(3,1,3);
k=-100:1:100;
plot(t,myfs(coeff,2.*pi,t)); grid on; xlabel('t'); title('N = 100');
```


N = 10
1
0.8
0.6
0.4
0.2
0
-6
-4
-2
0
2
4
6
t


N = 50
1
0.8
0.6
0.4
0.2
0
-6
-4
-2
0
2
4
6
t


N = 100
1
0.8
0.6
0.4
0.2
0
-6
-4
-2
0
2
4
6
t