EE313 Matlab HW 9

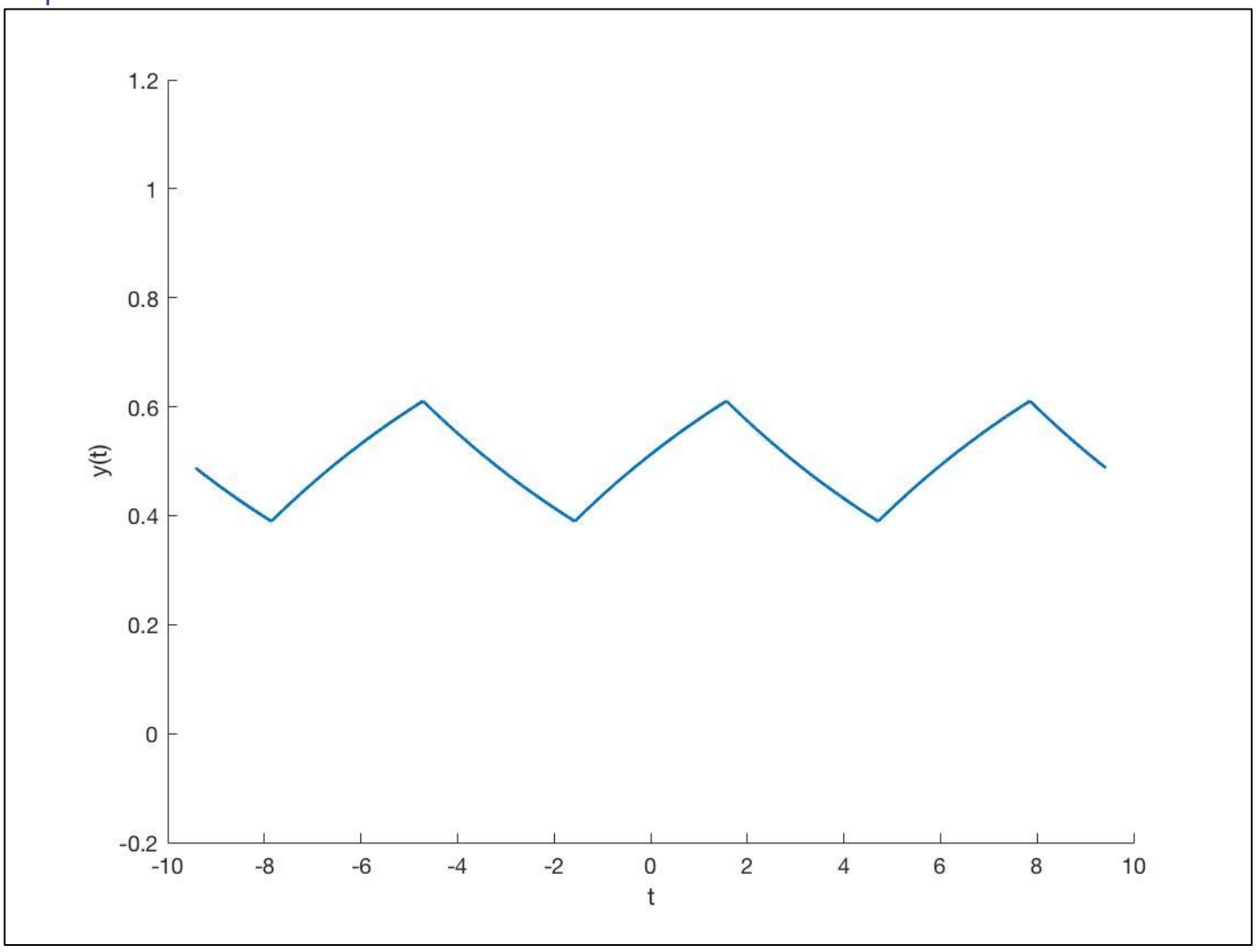
Problem 1:

Code:

```
clf;
t = linspace(-3*pi,3*pi,6001);
omega0=1;
%synthesize x(t) from Xn=1/2*sinc(n/2)
RC=7;
in = -10000:10000;
xn = 1/2*sinc(in./2);
yn = xn./(1+1i.*in.*omega0.*RC);
y = sum(yn.*exp(1i*in*omega0.*t'),2);

hold on;
h = plot(t,y);
set(h,'LineWidth',1.5);
ylim([-.2 1.2])
```

Graph:



Problem 2:

Code:

```
x = sin(1:20);
h = [0 0 1 2 3 0 0];
y = conv(x,h);
bar(y)
```

Graph: