

2.2.1

PROBLEM 10.

<PART 2>

Plotting the power spectrum for

$$f(t) = 4\cos(100t)\cos(2t)$$

```
a = [1, 0, 0, 0, 1, zeros([1, 195]), 1, 0, 0, 0, 1];  
figure(1)  
bar((-102:102), abs(a(1:205).^2), 0.5)  
ylim([0 1.5])  
grid on  
grid minor  
box on  
xlabel('The frequency k'); ylabel('|a_k|^2')  
title(['The power spectrum of f(t) = 4cos(100t)cos(2t) over ' ...  
      '[0 2*pi]'], '- By: Tomoki Koike')
```

