2.2.1

PROBLEM 9.

<PART 2>

Plottimg the power spectrum for

$f(t) = 2 + 8\sin^3(t)$

```
a = [1i, 0, -3i, 2, 3i, 0, -1i, zeros([1, 100])];
figure(1)
bar((0:10), abs(a(1:11).^2), 0.5)
ylim([0 10])
xticks([(0:11)])
xticklabels({'-3', '-2', '-1', '0', '1', '2', '3', '4', '5', '6', '7', '8'})
grid on
grid minor
box on
xlabel('The frequency k'); ylabel('|a_k|^2')
title({['The power spectrum of f(t) = 2 + 8(sin(t))^3 over ' ...
    '[0 2*pi]'],'- By: Tomoki Koike'})
```