HOMEWORK ASSIGNMENT #1

Due Wed. Jan. 9, 2008 (in class)

Reading:

1. Ch. 1.

2. Ch. 2.1-2.5, though the subsection on Time-Bandwidth Product is optional.

Problems:

1. (Haykin 2.2)   [Note: the solution given in the book is incorrect!]

2. Say that $w(t)$ is a real-valued signal. Prove that its Fourier transform magnitude is symmetric around $f = 0$, i.e., that $|W(f)| = |W(-f)|$.

3. (Haykin 2.6)

4. (Haykin 2.9)