Homework #5 Due February 23.

- Read Chapter 3 through page 85.
- Do Exercises 1 – 8, 12, and 13 in Chapter 3. As a hint, we remind you that if x is real, then $\cos x = \mathrm{Re}(e^{ix})$, and therefore, for example,

$$\int_{-\infty}^{\infty} \frac{\cos x}{x^2 + a^2} = \mathrm{Re}\left(\int_{-\infty}^{\infty} \frac{e^{ix}}{x^2 + a^2} \right).$$

- Hand in Exercises 3, 6, 8, and 12.