Math 410 **Dr. DeTurck**
Assignment 1 **Due Tuesday, September 15, 2009**

Reading: Textbook pp. 1–7; Zill and Cullen (your old Math 240 book) pp. 790–800. If you don't have your Zill and Cullen anymore (or if you never had it), there's a pdf file of the relevant pages on the website.

Practice problems: (don't hand these in)

1. Handout page 793, problems 17, 22, 33
2. Handout page 797, problems 11, 21, 27, 37
3. Handout page 800, problems 7, 8, 15
4. Textbook page 24, problems 1(a),(c),(e)

Problems to hand in:

1. Handout page 793, problems 36, 40
2. Handout page 797, problems 26, 34, 38
3. Handout page 800, problems 23, 25
4. Textbook page 24, problems 1(b),(f)
5. Textbook page 26, problem 7
6. Prove that the points z_1, z_2 and z_3 are the vertices of an equilateral triangle if and only if

$$z_1^2 + z_2^2 + z_3^2 = z_1z_2 + z_2z_3 + z_3z_1.$$