Math 425, Spring 2015   **Jerry L. Kazdan**

Problem Set 7

DUE: Thurs. Mar. 5 in class. [Late papers will be accepted until 1:00 PM Friday.]

This week. Please read the Chapters 5 and 6 in the Strauss text.

[Lots of problems. Fortunately, most of them are short.]

1. Strauss, p. 122 #2

2. Strauss, p. 123 #3

3. Strauss, p. 123 #9

4. Strauss, p. 124 #13

5. Strauss, p. 124 #15

6. Strauss, p. 136 #18

7. Strauss, p. 145 #2

8. Strauss, p. 150 #1

9. Strauss, p. 151 #6

10. Strauss, p. 160 #2

11. Strauss p. 160 #6

12. Strauss p. 160 #10

13. In a bounded region D in the plane, say $\Delta u = 0$ and $\Delta(v) = 0$ with $u(x,y) = f(x,y)$ and $v(x,y) = g(x,y)$ at all points on the boundary, ∂D. What information does the maximum principle give?

14. Strauss p. 161 #11. [HINT: Divergence theorem.]

[Last revised: February 27, 2015]