Math 5587
November 18, 2004

Homework Assignment # 6

Exercises: Strauss pp 50–52, 4, 5, 8, 18; pp 329–330, 4, 6, 9.

For problem 8, show also that, for each fixed x, $S(x,t) \to 0$ as $t \to \infty$. Given x, at what time does the temperature $S(x,t)$ reach its maximum? What is the maximum?

Due: Tuesday, November 30

Text: Walter A. Strauss, *Partial Differential Equations: an Introduction*, John Wiley & Sons, New York, 1992.

Second Midterm: Thursday, December 2

Will cover sections 2.3, 2.4, 2.5, 4.1, 4.2, 12.3, 12.4

You will be allowed to use one 8" $\times$ 11" sheet of notes.