Math 333 Homework Problems #5

APPLIED PARTIAL DIFFERENTIAL EQUATIONS (2ND EDITION), by J.D. Logan

4.1. Separation of variables

- 4.1.3
- 4.1.5 Inside the rectangle $0 \leq x \leq L$, $0 \leq y \leq H$ solve

$$\Delta u = 0; \quad u_x(0,y) = u_x(L,y) = u(x,0) = 0,\ u(x,H) = f(x).$$

- 4.1.6 Inside the rectangle $0 \leq x \leq L$, $0 \leq y \leq H$ solve

$$\Delta u = 0; \quad u_x(0,y) = u_x(L,y) = 0,\ u(x,0) = g(x),\ u(x,H) = f(x).$$