

**Third Homework, due Monday November 12 , 2007**

1) Solve the problem

$$u_{tt} - u_{xx} = x^2, t > 0, -\infty < x < \infty$$

satisfying the initial conditions

$$u = x, u_t = 0, \text{ for } t = 0.$$

2) Do the problems 15, 17, and 18 on page 88/89 of LC Evans' book.