

**Math 331-004 Quiz 3**

Thursday 1/29/2004

Name \_\_\_\_\_

Determine the long time solution for the following problem:

$$0 < x < 1, 0 < t : u_t = u_{xx}$$

$$x = 0 : u(0, t) = 1, x = 1 : u(1, t) = 1$$

$$0 < x < 1, t = 0 : u(x, 0) = f(x)$$