GES 554: Quiz 2 Name:_____

Read, Think, and then Write

Calculate the solution:

$$\frac{du}{dt} = \frac{d}{dx}\left(\frac{du}{dx}\right) \qquad 0 < x < 1 \qquad 0 < t < \infty$$

$$u(0,t) = 2\int_0^1 \sin(7\pi x)\sin(3\pi x)\,\mathrm{dx}$$

$$u(1,t) = 2\int_0^1 \sin(31415\pi x)\sin(31415\pi x)\,\mathrm{dx}$$

$$u(x,0) = x + \sin(\pi x) + \sin(3\pi x) + \sin(1000\pi x)$$