

Math 309 Quiz 8

December 11, 2015

Problem 1. Find a solution to the wave equation problem

$$u_{tt} - c^2 u_{xx} = 0$$

$$u(0, t) = 0, \quad u(2\pi, t) = 0$$

$$u(x, 0) = \sin(3x/2) - 2 \sin(7x), \quad u_t(x, 0) = 0.$$

Problem 2. Find a solution to the wave equation problem

$$u_{tt} - c^2 u_{xx} = 0$$

$$u(0, t) = 0, \quad u(\pi, t) = 0$$

$$u(x, 0) = 0, \quad u_t(x, 0) = \sin(3x) - 7 \sin(5x).$$