

## Attendance Quiz for Lecture 14

NAME: (print!) \_\_\_\_\_ Section: \_\_\_\_\_

E-MAIL ADDRESS: (print!) \_\_\_\_\_

1. A string of length 10 meters coincides with the interval  $[0, 10]$  on the  $x$ -axis. Set up the boundary-value problem for the displacement  $u(x, t)$ .

a. The ends are secured to the  $x$ -axis. The string is released from rest from the initial displacement  $x^2(10 - x)^7$ .

b. The ends are secured to the  $x$ -axis. The string is along the  $x$ -axis at the very beginning, but has initial velocity  $\sin(\pi x/10)$ .

c. The right end is secured to the  $x$ -axis, but the left end moves in a **transversal** manner according to  $\sin(4\pi t)$ . Initially the string is undisplaced and is at rest.