

Math 301 (Semester 122)
Quiz Two

Name: _____
ID Num: _____
Section: _____ Serial Number: _____

1. Use the method of separation of variables to solve the BVP for $u = u(x, t)$:

$$\begin{aligned}4u_{xx} &= u_{tt}, \\0 < x < 1, \quad t > 0, \\u(0, t) &= u(1, t) = 0, \\u(x, 0) &= 0 \quad u_t(x, 0) = t.\end{aligned}$$

Clearly show all working.