

Attendance Quiz for Lecture 19

NAME: (print!) _____ Section: _____

E-MAIL ADDRESS: (print!) _____

Version of Dec. 19, 2024 (thanks to Daryl Chu)

1.: Find the Laplace Transform of the pde $u_{xx} = 4u_{tt}$, $t > 0$.

2.: Solve the pde

$$u_{xx} = u_{tt} \quad , \quad 0 < x < 2 \quad , \quad t > 0 \quad ,$$

subject to the **boundary-conditions**

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

and the **initial conditions**

$$u(x, 0) = 0 \quad , \quad u_t(x, 0) = \sin(\pi x/2) \quad , \quad 0 < x < 2 \quad .$$