

Attendance Quiz for Lecture 21

NAME: (print!) _____ Section: _____

E-MAIL ADDRESS: (print!) _____

1.: Solve the pde

$$u_{xx} = u_t \quad , \quad , -\infty < x < \infty \quad , \quad t > 0$$

subject to the initial condition

$$u(x, 0) = \begin{cases} 0, & \text{if } -\infty < x < -2; \\ 1, & \text{if } -2 \leq x < 0; \\ 2, & \text{if } 0 \leq x < 3; \\ 0, & \text{if } 3 \leq x < \infty; \end{cases} .$$