

Quiz 8 Math 301-06172 Name:.....

Exercise: Use the Laplace transform to solve

$$\begin{cases} \frac{\partial u}{\partial t} = 3 \frac{\partial^2 u}{\partial x^2} = 0, & 0 < x < 2, t > 0 \\ u(0, t) = 0, u(2, t) = e^{-t}, & t \geq 0 \\ u(x, 0) = 1, & 0 \leq x \leq 2 \end{cases}$$