1. Solve the boundary value problem

\[ u_{xx} = u_{tt}, \quad 0 < x < \pi, \quad t > 0; \]
\[ u(0, t) = 0, \quad u(\pi, t) = 0, \quad t > 0; \]
\[ u(x, 0) = 3, \quad u_t(x, 0) = 4, \quad 0 < x < \pi. \]