

HW #12a

Math 182, Spring 2005

Due Friday, May 6, 2005, at 2:50 p.m.

Solve

$$\begin{cases} \frac{\partial^2 u}{\partial t^2} - c^2 \frac{\partial^2 u}{\partial x^2} = \sin(kx - \omega t), & \frac{\omega}{k} \neq c \\ u(x, 0) = 0 \\ \frac{\partial u}{\partial t}(x, 0) = 0 \end{cases}$$