

Exercise 13

Solve the wave equation in the half-space $\{(x, y, z, t) : z > 0\}$ with the Neumann condition $\partial u / \partial z = 0$ on $z = 0$, and with initial data $\phi(x, y, z) \equiv 0$ and general $\psi(x, y, z)$. (*Hint:* See (3) and use the method of reflection.)