

Homework Math 6390
Due February 24, 2000

Consider the model:

$$\mathbf{e}u_t = \mathbf{e}^2 u_{xx} - u + a_1 m(1 - n) - a_2 n$$

$$m = \begin{cases} 1 & u > a \\ 0 & u < a \end{cases}$$

$$n_t = m - n$$

Determine the wave speed for a traveling wave solution.