

ITEC451
Activity 3

[Linear Algebra] During any given year, 20% of cable communication users become satellite communication users and 10% of satellite communication users become cable communication users (all other people use the same communication service). Let C_t be the number of cable communication users at the beginning of year t , and S_t be the number of satellite communication users at the beginning of year t . Use matrix multiplication to relate the vector

$\begin{bmatrix} C_{t+1} \\ S_{t+1} \end{bmatrix}$ to the vector $\begin{bmatrix} C_t \\ S_t \end{bmatrix}$. (This is based on the problem 3 in the page 47 of the textbook.)