

Real Quiz 2 of Dr. Z.'s Dynamical Models in Biology class

Name: (print!)

Email: (print!)

1. (7 points altogether)

a. (5 points) Find all the eigenvalues of the matrix

$$\begin{bmatrix} 3 & 6 \\ 6 & 3 \end{bmatrix}$$

b. (2 points) Find the corresponding eigenvector of the larger eigenvalue.

2. (3 points) Solve the following recurrence with the given initial conditions

$$a(n) - a(n - 2) = 0 \quad ; \quad a(0) = 2 \quad , \quad a(1) = 0 \quad .$$