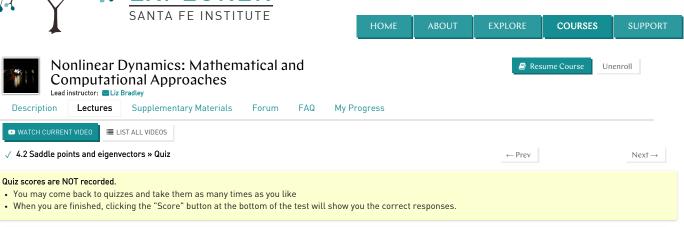
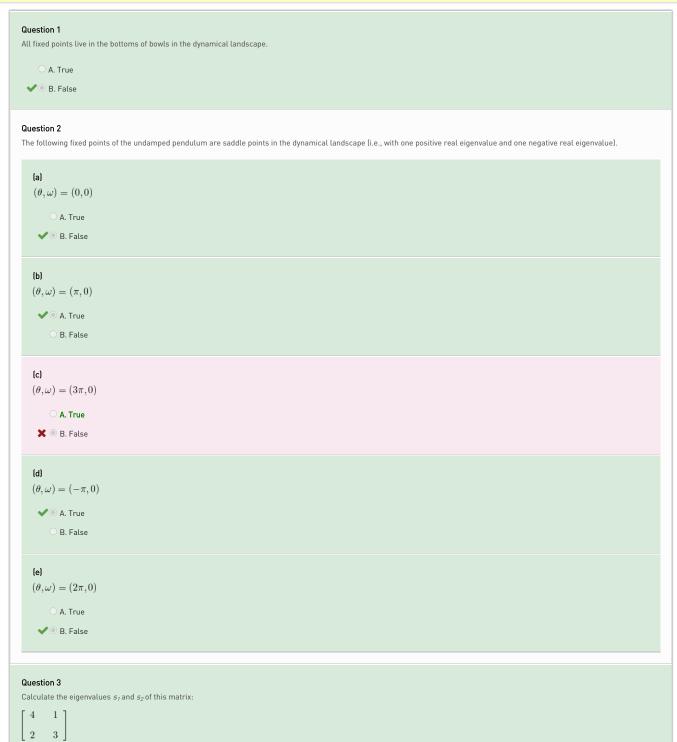
6/1/2020

Raiesh Shashi Kumar Logout







<u> </u>
\bigcirc A. $s_1 = -1$, $s_2 = 5$
\bigcirc B. $s_1 = 1$, $s_2 = -5$
✓ \odot C. $s_1 = 5$, $s_2 = 2$
O D. s_1 = -5, s_2 = -2
○ E. Undefined
Question 4
What is the shape of this matrix?
$\begin{bmatrix} 0 & 9.2 & \pi & e & 7 \end{bmatrix}$
$\begin{bmatrix} 18 & 13 & 12 & -8.2 & 2\pi \end{bmatrix}$
○ A. 5x2
⋄ © B. 2x5
○ C. 2x2
O D. 5x5
© E. Undefined
C. Origennieu
Question 5
A is a 2x2 matrix that captures how the state of a dynamical system evolves. How many eigenvalues does A have? [Experts: count any repeated ones individually.]
○ A. 0
O B. 1
✓ © C.2
○ D. 3
© E. Undefined
C E. Underined
Question 6 A is a matrix that captures how the state of a dynamical system evolves. Any point on an eigenvector of A stay on that eigenvector. A. Can ■ B. Must C. Does not
Question 7 A is a 2x2 matrix that captures how the state of a dynamical system evolves. If the eigenvalues of A are negative, what kind of dynamics does that reflect? (Experts: assume that they're real-valued.)
✓ ○ A. Fixed point
O B. Periodic orbit
O C. Chaotic
O. Divergence
Question 8 An eigenvalue defines:
All digentitude defined.
○ A. How big a matrix is
✓ ○ B. How fast a trajectory moves along the corresponding eigenvector
C. Whether or not a matrix captures the state of a dynamical system
Question 9 A matrix can give you an accurate representation of the evolution of the state of a linear dynamical system.
O A. True
X ◎ B. False
Question 10 A matrix can give you an accurate <i>local</i> representation of the evolution of the state of a nonlinear dynamical system. ② A. True
O B. False

