WebAssign
CH 7.3 - 2 (Homework)

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MA 265 Spring 2013, section 132, Spring 2013
Instructor: Alexandre Eremenko

Current Score : 20 / 20 **Due :** Thursday, April 18 2013 11:40 PM EDT

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

Request Extension View Key

1. 5/5 points | Previous Answers KolmanLinAlg9 7.3.018.

Diagonalize the given matrix and find an orthogonal matrix P such that $P^{-1}AP$ is diagonal. (Let D denote the diagonal matrix. Enter each matrix in the form [[row 1], [row 2], ...], where each row is a comma-separated list.)

$$A = \begin{bmatrix} 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -4 \\ 0 & 0 & -4 & 0 \end{bmatrix}$$

$(D, P) = \Big(\qquad \Big)$

2. 5/5 points | Previous Answers KolmanLinAlg9 7.3.019.

Diagonalize the given matrix and find an orthogonal matrix P such that $P^{-1}AP$ is diagonal. (Let D denote the diagonal matrix. Enter each matrix in the form [[row 1], [row 2], ...], where each row is a comma-separated list.)

$$A = \begin{bmatrix} 0 & -5 & -5 \\ -5 & 0 & -5 \\ -5 & -5 & 0 \end{bmatrix}$$

$(D, P) = \Big(\qquad \Big)$

3. 5/5 points | Previous Answers KolmanLinAlg9 7.3.020.

Diagonalize the given matrix and find an orthogonal matrix P such that $P^{-1}AP$ is diagonal. (Let D denote the diagonal matrix. Enter each matrix in the form [[row 1], [row 2], ...], where each row is a comma-separated list.)

$$A = \begin{bmatrix} -3 & 2 & 2 \\ 2 & -3 & 2 \\ 2 & 2 & -3 \end{bmatrix}$$

$(D, P) = \Big(\qquad \Big)$

4. 5/5 points | Previous Answers KolmanLinAlg9 7.3.022.

Diagonalize the given matrix.

$$A = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}$$

0	0	0	0
0	0	0	0
0	0	2	0
0	0	0	2