WebAssign
CH 4.3 (Homework)

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

Current Score : 16.12 / 20 **Due :** Thursday, February 14 2013 11:40 PM EST

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

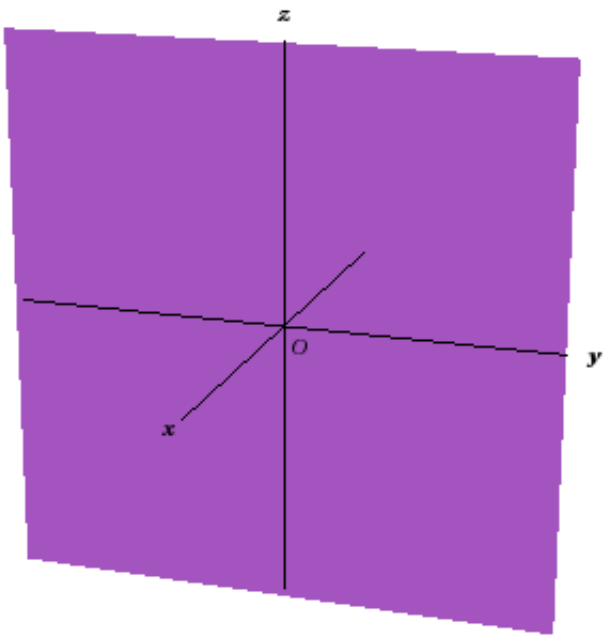
Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

Request Extension View Key

1. 6.66/6.66 points | Previous Answers KolmanLinAlg9 4.3.002.

Let W be the set of all points in R^3 that lie in the yz-plane. Is W a subspace of R^3?

- (•) Yes
- ( ) No



2. 5/6.66 points | Previous Answers KolmanLinAlg9 4.3.006.

Which of the given subsets of R^3 are subspaces?

(a) The set of all vectors of the form $\begin{bmatrix} a \\ b \\ 0 \end{bmatrix}$.

- (•) subspace
- ( ) not a subspace

✓

(b) The set of all vectors of the form $\begin{bmatrix} a \\ b \\ c \end{bmatrix}$, where $a > 0$.

- (•) subspace
- ( ) not a subspace

✗

(c) The set of all vectors of the form $\begin{bmatrix} a \\ c \\ c \end{bmatrix}$.

- (•) subspace
- ( ) not a subspace

✓

(d) The set of all vectors of the form $\begin{bmatrix} a \\ b \\ c \end{bmatrix}$, where $2a - b + c = 3$.

- ( ) subspace
- (•) not a subspace

✓

3. 4.46/6.68 points | Previous Answers KolmanLinAlg9 4.3.010.

Which of the given subsets of the vector space, M_{23}, of all 2 × 3 matrices are subspaces?

(a) $\begin{bmatrix} a & b & c \\ d & e & f \end{bmatrix}$, where $a = 2c$

- subspace
- not a subspace ✗

(b) $\begin{bmatrix} 0 & 1 & a \\ b & c & 0 \end{bmatrix}$

- subspace
- not a subspace ✓

(c) $\begin{bmatrix} a & b & c \\ d & e & f \end{bmatrix}$, where $a + c = 0$ and $b + d + f = 0$

- subspace ✓
- not a subspace