MASTERY QUIZ DAY 6   Math 237 – Linear Algebra
Version 1   Fall 2017

Show all work. Answers without work will not receive credit. You may use a calculator, but you must show all relevant work to receive credit for a standard.

E1. Write an augmented matrix corresponding to the following system of linear equations.

$$x + 3y - 4z = 5$$
$$3x + 9y + z = 0$$
$$x - z = 1$$

E3. Solve the system of equations

$$x + 3y - 4z = 5$$
$$3x + 9y + z = 2$$

E4. Find the solution set for the following system of linear equations.

$$2x_1 - 2x_2 + 6x_3 - x_4 = 0$$
$$3x_1 + 6x_3 + x_4 = 0$$
$$-4x_1 + x_2 - 9x_3 + 2x_4 = 0$$

E1: [ ]   **E3:** [ ]   **E4:** [ ]   **E2:** [ ]

MASTERY QUIZ DAY 6   Math 237 – Linear Algebra
Version 2   Fall 2017
Show all work. Answers without work will not receive credit. You may use a calculator, but you must show all relevant work to receive credit for a standard.

E1. Write an augmented matrix corresponding to the following system of linear equations.

$$x + 3y - 4z = 5$$
$$3x + 9y + z = 0$$
$$x - z = 1$$

E3. Solve the system of equations

$$-3x + y = 2$$
$$-8x + 2y - z = 6$$
$$2y + 3z = -2$$

E4.   Solve the following linear system.

$$3x + 2y + z = 0$$
$$x + y + z = 0$$

E1: [ ]   **E3:** [ ]   **E4:** [ ]   **E2:** [ ]

MASTERY QUIZ DAY 6   Math 237 – Linear Algebra
Version 3   Fall 2017

Show all work. Answers without work will not receive credit. You may use a calculator, but you must show all relevant work to receive credit for a standard.

E1. Write an augmented matrix corresponding to the following system of linear equations.

$$x_1 + 4x_3 = 1$$
$$x_2 - x_3 = 7$$
$$x_1 - x_2 + 3x_4 = -1$$

E3. Solve the system of equations

$$x + 3y - 4z = 5$$
$$3x + 9y + z = 2$$

E4. Find a basis for the solution set to the system of equations

$$x + 2y - 3z = 0$$
$$2x + y - 4z = 0$$
$$3y - 2z = 0$$
$$x - y - z = 0$$

E1: [   ]   **E3:** [   ]   **E4:** [   ]   **E2:** [   ]

MASTERY QUIZ DAY 6 Math 237 – Linear Algebra

Version 4 Fall 2017

Show all work. Answers without work will not receive credit. You may use a calculator, but you must show all relevant work to receive credit for a standard.

E1. Write a system of linear equations corresponding to the following augmented matrix.

$$\left[\begin{array}{ccc|c} 2 & -1 & 0 & 1 \\ -1 & 4 & 1 & -7 \\ 1 & 2 & -1 & 0 \end{array}\right]$$

E3. Find the solution set for the following system of linear equations.

$$2x_1 - 2x_2 + 6x_3 - x_4 = -1$$
$$3x_1 + 6x_3 + x_4 = 5$$
$$-4x_1 + x_2 - 9x_3 + 2x_4 = -7$$

E4. Find a basis for the solution set to the homogeneous system of equations

$$4x_1 + 4x_2 + 3x_3 - 6x_4 = 0$$
$$-2x_3 - 4x_4 = 0$$
$$2x_1 + 2x_2 + x_3 - 4x_4 = 0$$

E1: ⬚   **E3:** ⬚   **E4:** ⬚   **E2:** ⬚

MASTERY QUIZ DAY 6   Math 237 – Linear Algebra
Version 5   Fall 2017
Show all work. Answers without work will not receive credit. You may use a calculator, but you must show
all relevant work to receive credit for a standard.

E1. Write an augmented matrix corresponding to the following system of linear equations.

$$x_1 + 3x_2 - 4x_3 + x_4 = 5$$
$$3x_1 + 9x_2 + x_3 - 7x_4 = 0$$
$$x_1 - x_3 + x_4 = 1$$

E3. Find the solution set for the following system of linear equations.

$$2x_1 - 2x_2 + 6x_3 - x_4 = -1$$
$$3x_1 + 6x_3 + x_4 = 5$$
$$-4x_1 + x_2 - 9x_3 + 2x_4 = -7$$

E4. Solve the following linear system.

$$3x + 2y + z = 0$$
$$x + y + z = 0$$

E1: [   ]   **E3:** [   ]   **E4:** [   ]   **E2:** [   ]

MASTERY QUIZ DAY 6   Math 237 – Linear Algebra
Version 6   Fall 2017
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E1. Write a system of linear equations corresponding to the following augmented matrix.

$$\left[\begin{array}{ccc|c} -4 & -1 & 3 & 2 \\ 1 & 2 & -1 & 0 \\ -1 & 4 & 1 & 4 \end{array}\right]$$

E3. Solve the system of equations

$$x + 3y - 4z = 5$$
$$3x + 9y + z = 2$$

E4. Find the solution set for the following system of linear equations.

$$2x_1 - 2x_2 + 6x_3 - x_4 = 0$$
$$3x_1 + 6x_3 + x_4 = 0$$
$$-4x_1 + x_2 - 9x_3 + 2x_4 = 0$$

E1: [ ]   **E3:** [ ]   **E4:** [ ]   **E2:** [ ]