

Name:

Quiz 6 – 9 October 2019

Instructions. You have 15 minutes to complete this quiz. You may not use your calculator. You may not use any other materials (e.g., notes, homework, books).

Show all your work. To receive full credit, your solutions must be completely correct, sufficiently justified, and easy to follow.

Problem	Weight	Score
1	1	
2	2	
3	1	
Total		/ 40

Problem 1. Write the augmented matrix for the system of linear equations below.

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

$$2x + y = 2$$

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

Problem 2. Find the RREF of $\begin{bmatrix} 1 & 2 & 3 & 4 \\ 2 & 1 & 0 & 2 \\ 5 & 1 & -3 & 2 \end{bmatrix}$.

Problem 3. Suppose the RREF of an augmented matrix of a system of linear equations is

$$\begin{bmatrix} 1 & 0 & -1 & 0 \\ 0 & 1 & 2 & 2 \\ 0 & 0 & 0 & 0 \end{bmatrix}.$$

Assume the first three columns correspond to variables x , y , and z , respectively. What are the solutions of this system? Write your solutions in vector form.