2018 Fall EECS205002 Linear Algebra

Name: ID:

2018/09/14 Sample Quiz

1. Consider the following linear system

$$2x + y + 3z = 1$$
$$4x + 3y + 5z = 1$$
$$6x + 5y + 5z = -3$$

   (a) Write the system of equations as a matrix equation.

   (b) Write an equivalent matrix in row echelon form of above matrix using Gaussian elimination.

   (c) Solve the system by back substitution.

   (d) Validate your answer.

2. Give an example of two 3×3 matrix A and B such that $AB \neq BA$, and validate your answer.