

Assignment 9

Matish Singh Tanwar

Abstract—This document contains a solution to find explicitly all 2x2 row-reduced echelon matrices.

Download all latex-tikz codes from

https://github.com/Matish007/Matrix-Theory-EE5609-/tree/master/Assignment_9

1 PROBLEM

Describe explicitly all 2x2 row-reduced echelon matrices.

2 SOLUTION

2x2 matrices which are row-reduced echelon matrix can be represented as a linear combination of three matrices:-

$$c_1 \begin{pmatrix} 1 & 0 \\ 0 & 0 \end{pmatrix} + c_2 \begin{pmatrix} 0 & 1 \\ 0 & 0 \end{pmatrix} + c_3 \begin{pmatrix} 0 & 0 \\ 0 & 1 \end{pmatrix} \quad (2.0.1)$$