

Lecture Notes: RREF

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1 Overview

Key Points

- Matrix reduction
- Matrix simplification
- what is RREF

2 Detailed Notes

2.1 RREF Definition

The definition of rref is row reduced echelon form, the most difficult thing about this is that you can easily mess up the row reduction while doing any one of the steps

2.2 RREF Calculation

This is something which computers often do nowadays to simplify the procedure however we can still do it by following the major rules of matrix reduction. This enforces us to use only the major operations and whatever operation you do to one side of the matrix you have to do to the other. This isn't the difficult part however it is just remembering all the steps you took and ensuring that you aren't missing something simple.

3 Important Formulas/Theorems

Key Formula/Theorem

Row Reduction Theorem Gaussian Elimination :

$$\begin{bmatrix} a & b & c \\ c & d & e \\ f & g & h \end{bmatrix} \rightarrow \begin{bmatrix} a+1 & b+1 & c+1 \\ c & d & e \\ f & g & h \end{bmatrix}$$

4 Examples

$$\begin{bmatrix} a & b & c \\ c & d & e \end{bmatrix}$$

5 Questions/Topics for Further Study

- Question or topic for further study