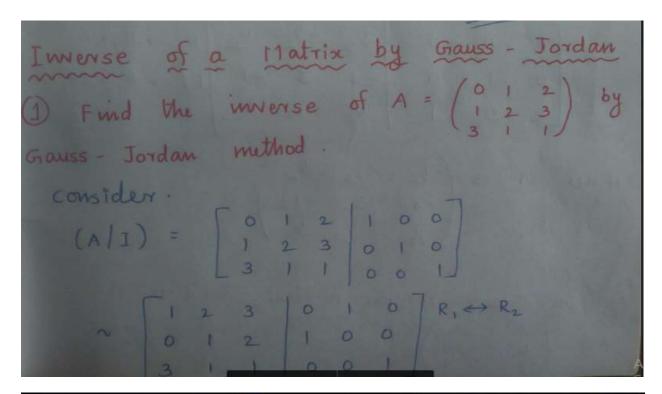


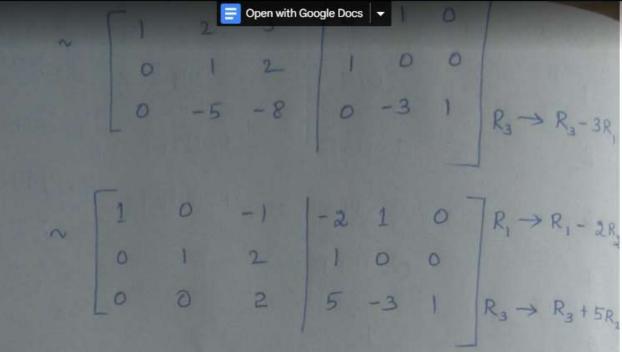
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Topic: 3.9 – Matrix Inversion – Gauss Jordan method



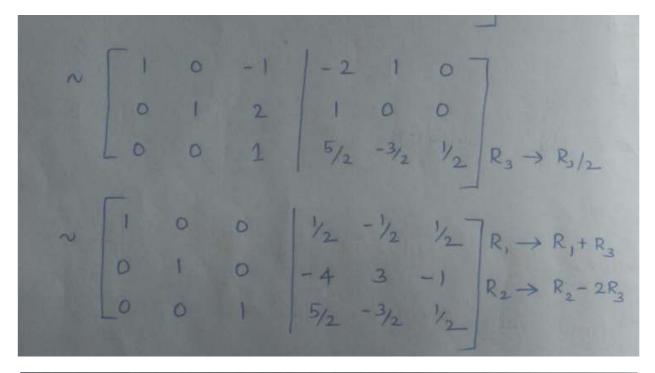




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Hence
$$A^{-1} = \begin{pmatrix} 1/2 & -1/2 & 1/2 \\ -4 & 3 & -1 \\ 5/2 & -3/2 & 1/2 \end{pmatrix}$$

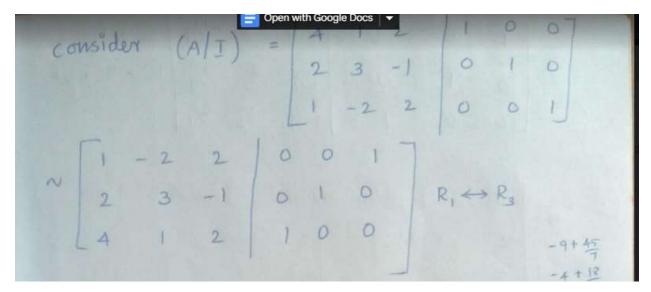
(2) By Grauss - Jordan mulhod, find A^{-1} if
$$A = \begin{pmatrix} 4 & 1 & 2 \\ 2 & 3 & -1 \\ 1 & -2 & 2 \end{pmatrix}$$

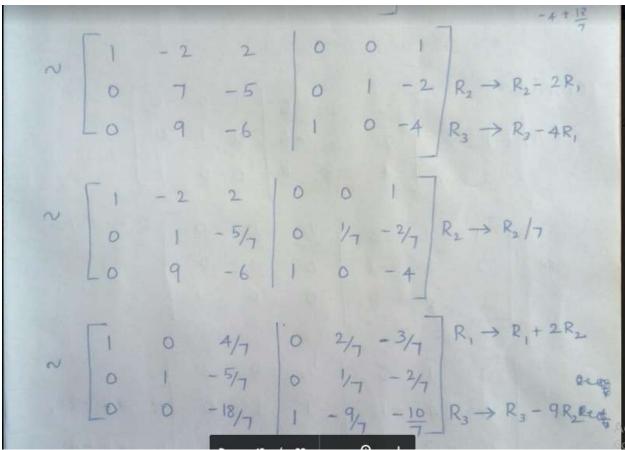


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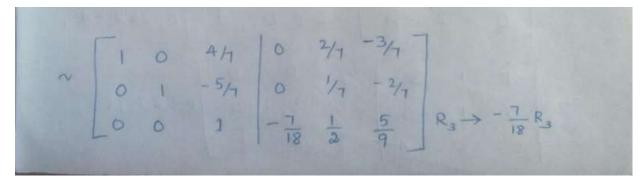


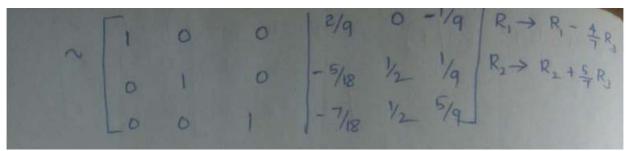


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3) By Gauss-Jordan method, find A if

$$A = \begin{pmatrix} 2 & 2 & 6 \\ 2 & 6 & -6 \\ 4 & -8 & 8 \end{pmatrix}$$

Consider

 $(A/I) = \begin{pmatrix} 2 & 2 & 6 & | & 1 & 0 & 0 \\ 2 & 6 & -6 & | & 0 & 1 & 0 \\ 4 & -8 & 8 & | & 0 & 0 & 1 \end{pmatrix}$
 $R_1 \rightarrow R_1/2$
 $R_2 \rightarrow R_1/2$
 $R_3 \rightarrow R_1/2$
 $R_4 \rightarrow R_2$

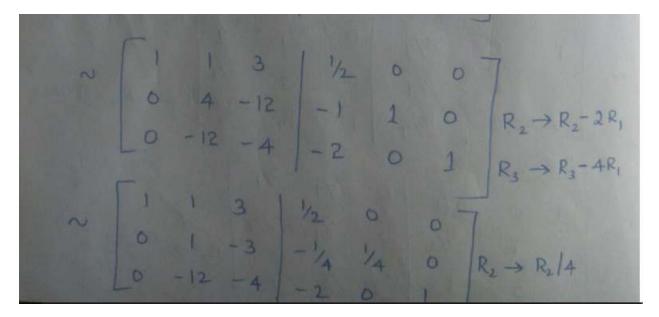
Page 20 / 22 $- Q + Q$

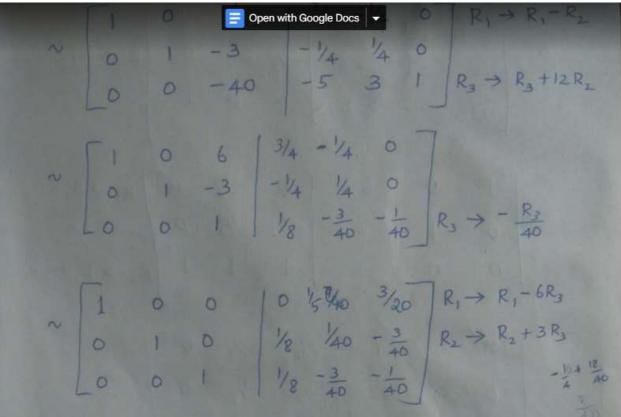


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