Add AB to AC and compare with ACB+C)

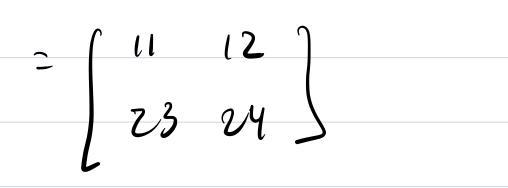
$$A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}, B = \begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix}, C = \begin{bmatrix} 00 \\ 56 \end{bmatrix}$$

$$= \left(\begin{array}{cc} \bot & 0 \\ \hline 3 & 0 \end{array}\right)$$

$$= \left(\begin{array}{ccc} 11 & 12 \\ 23 & 24 \end{array}\right)$$

Now:

$$(B+C) = \begin{cases} 1 & 0 \\ 0 & 0 \end{cases} + \begin{cases} 0 & 0 \\ 5 & 6 \end{cases}$$



Electure AB+ACZACB+C)

Problem 3.2

[2.5 #24 Introduction to Linear Algebra: Strang)

-Use Gauss-Sordan elimination on [UI] to find the apper trangular U-1:

$$uu^{-1} = J = \begin{cases} J & a & b \\ 0 & J & c \end{cases} \left(\alpha_1 \alpha_2 \alpha_3 \right)$$

$$= \begin{bmatrix} 0 & 1 & 0 \\ 1 & 0 & 0 \end{bmatrix}$$

* According to bases - Sordan Elimination re red to reduce nows:

$$\begin{bmatrix}
\boxed{1} & b & \boxed{1} & 0 & 0 \\
0 & 1 & C & 0 & 1 & 0
\end{bmatrix}$$

$$\begin{bmatrix}
\boxed{0} & 0 & 1 & 0 \\
0 & 0 & 1 & 0
\end{bmatrix}$$

$$\begin{bmatrix}
\boxed{1} & 0 & 0 & 1 \\
0 & 0 & 1 & 0
\end{bmatrix}$$

$$\begin{bmatrix}
1 & 0 & 0 & | & 1 & -a & ac-b \\
0 & 1 & 0 & | & 0 & 1 & -c \\
0 & 0 & 1 & | & 0 & 0 & 1
\end{bmatrix}$$

