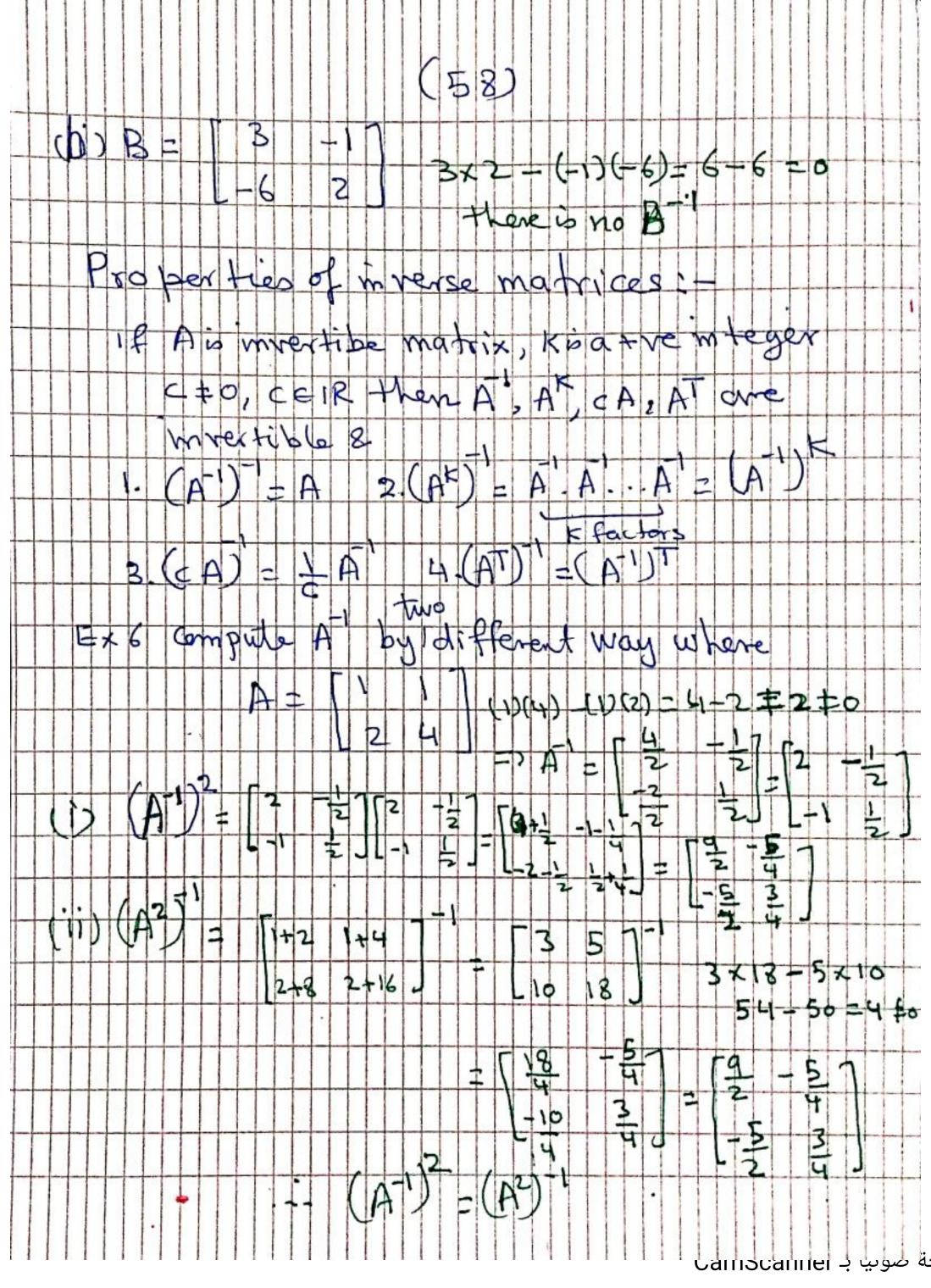
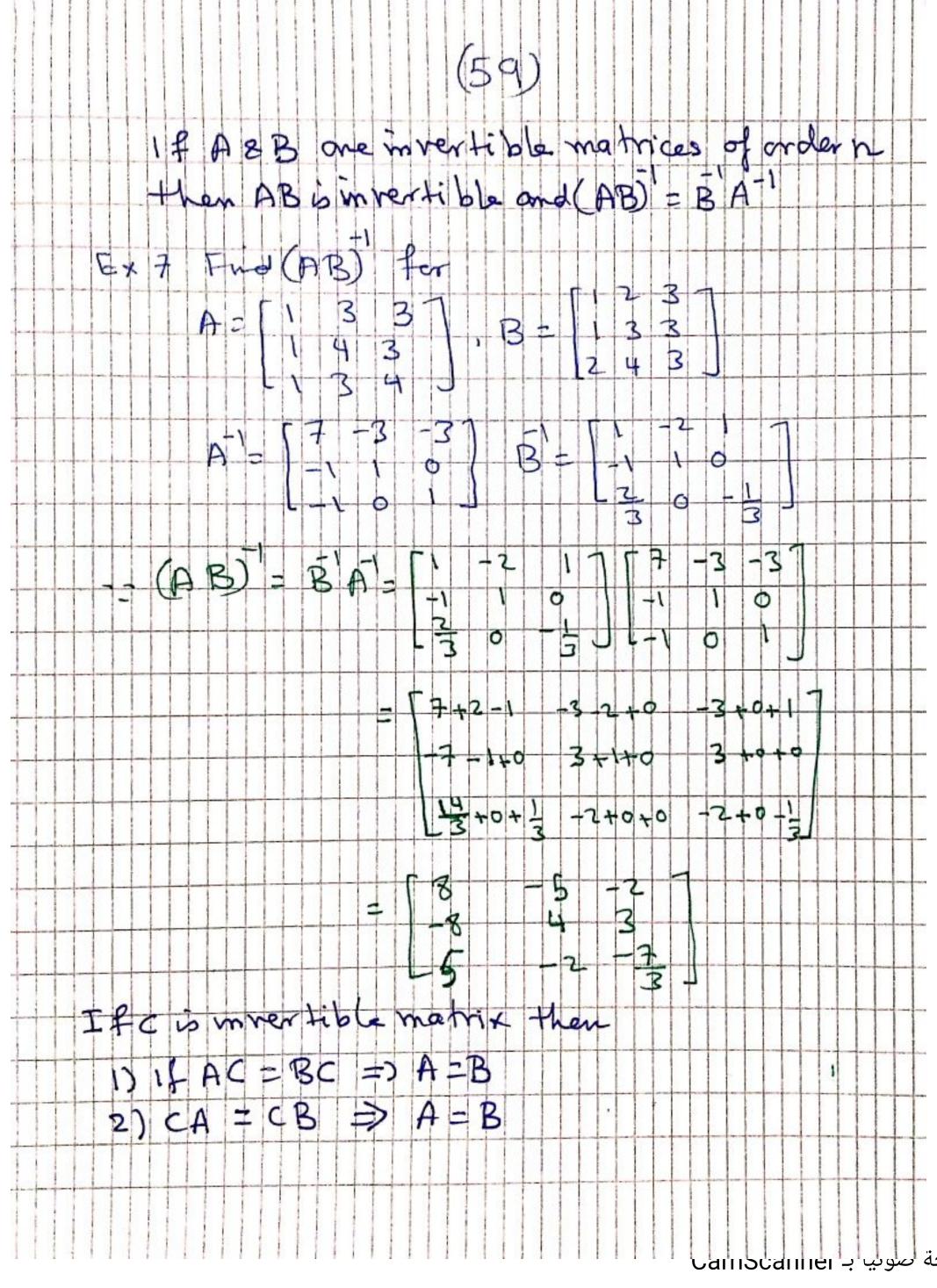
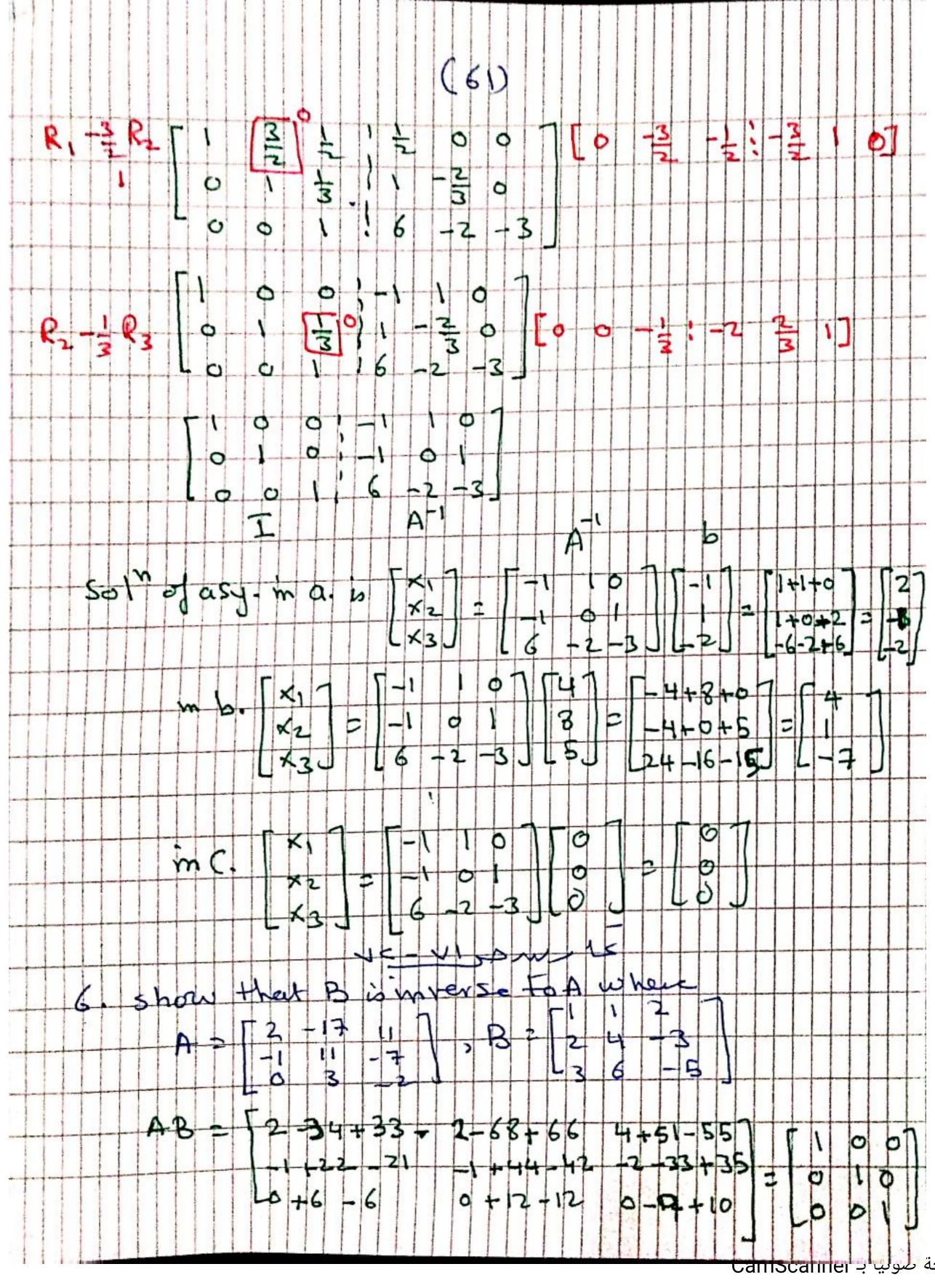


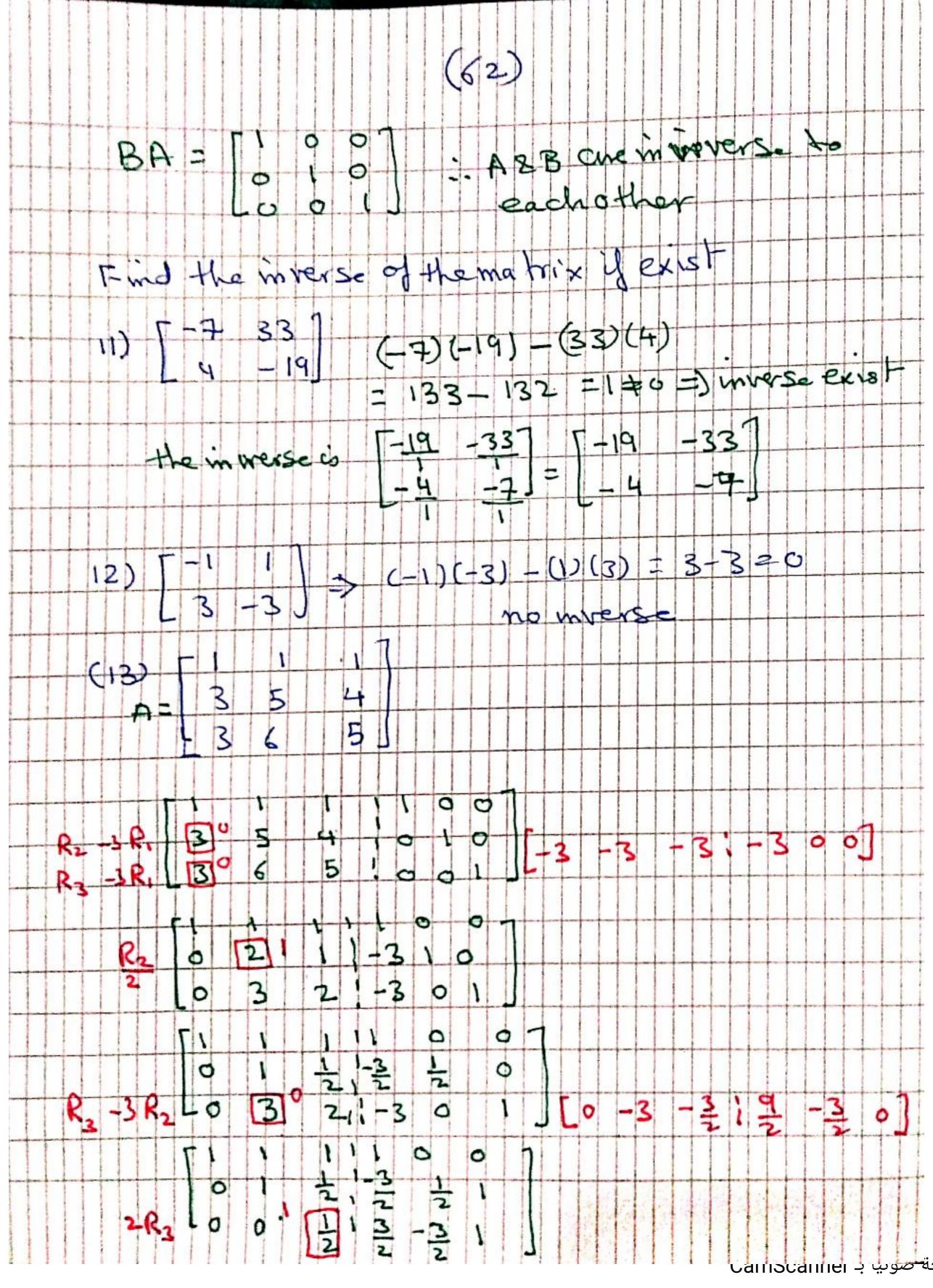
ويت نه Calliel

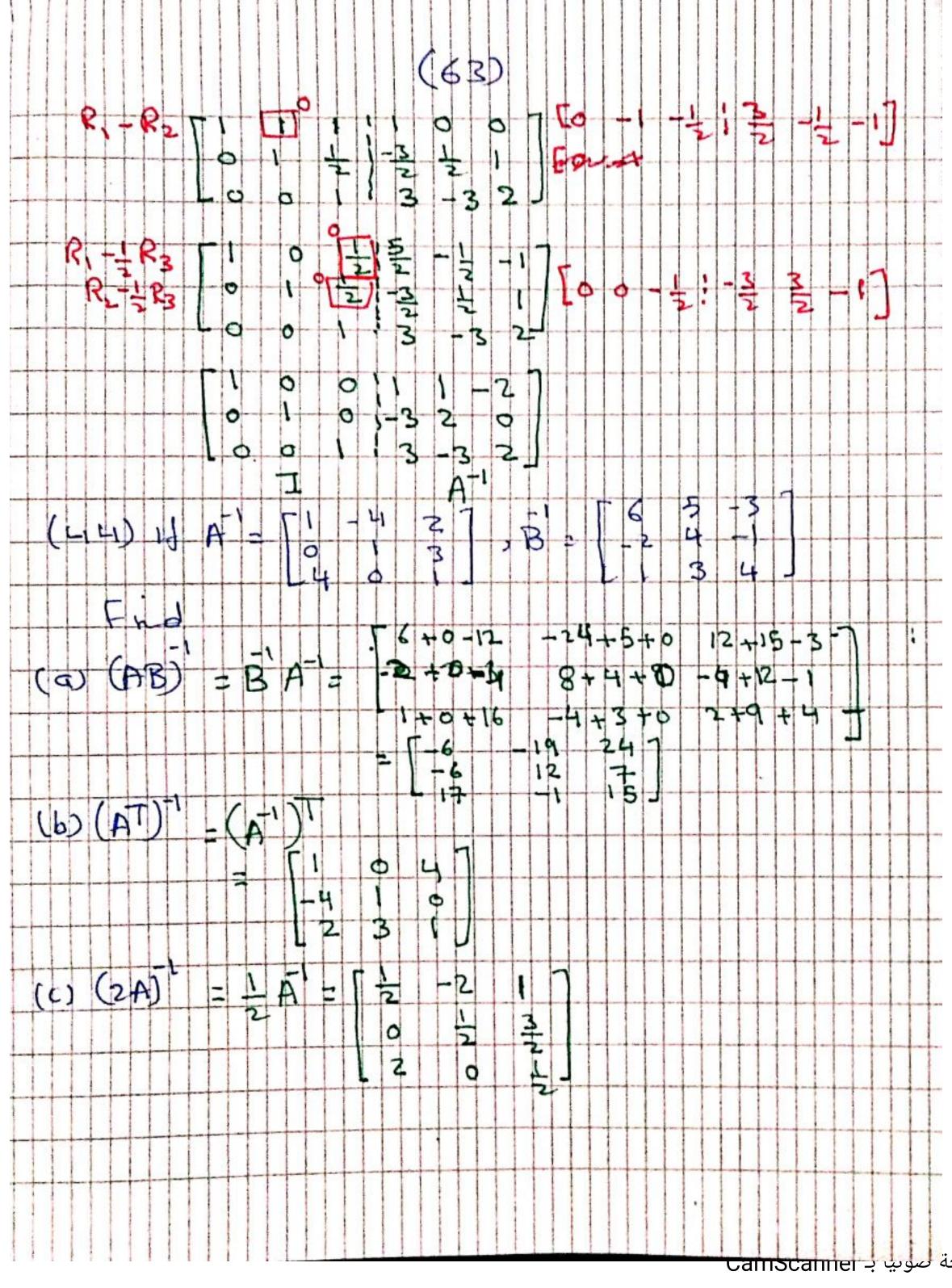




Linear egs Ax=b has a unique solmx=Ab E+8 use inverse matrix to solve Q- 2x+39+2=-1 b. 2x+3y+Z=4 C. 24+39+7=0 3x + 34 += =1 3x+3y+2=8 3x+3y+2=0 24+49+2=-2 2x+4y+2=5 2++44+2=0 odl systems have  $A = \begin{bmatrix} 2 & 5 & 1 \\ 3 & 3 & 1 \end{bmatrix}$ to Find A: 







Use an inverse to solve the following system 246 (a) 2x-y=-3 (b) 2x-y=-1 3x+y=-3 3x +y = 7 For both  $A = \begin{bmatrix} 2 & -1 \\ 3 & 1 \end{bmatrix} \Rightarrow 2 - (-3) = 5 \neq 0$   $\Rightarrow A^{-1} = \begin{bmatrix} \frac{1}{5} & \frac{1}{5} \\ \frac{1}{5} & \frac{1}{5} \end{bmatrix} \Rightarrow \text{one solution}$ (b)  $\begin{bmatrix} x \\ y \end{bmatrix} = A^{7}b = \begin{bmatrix} 5 \\ 5 \end{bmatrix} \begin{bmatrix} -1 \\$