

## Ouiz 31

## $\therefore$ Find the matrix-vector product, $\bigwedge_V^+$

## Q2: Find the matrix-vector product, /////

$$\vec{V} = (1, -3, 5, -4)$$

0 4

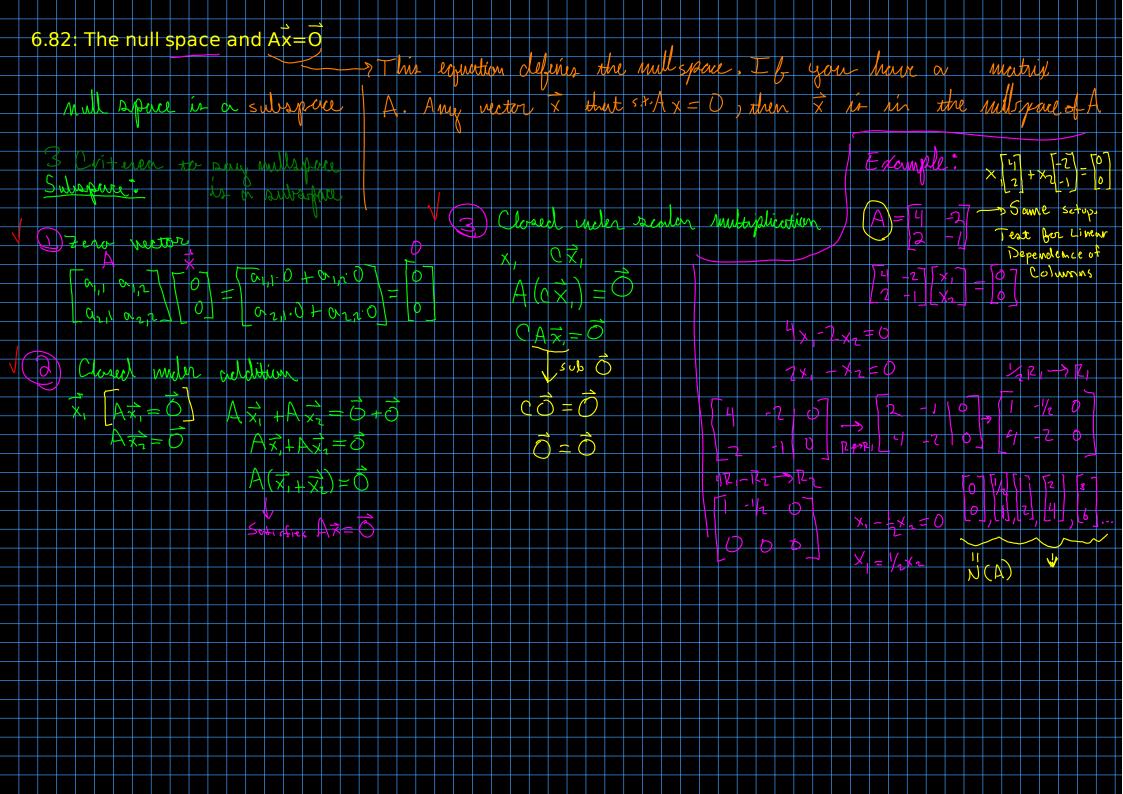
$$\frac{1}{\sqrt{1-5}} = \frac{3}{3} = \frac{1}{6} = \frac{1}{3} =$$

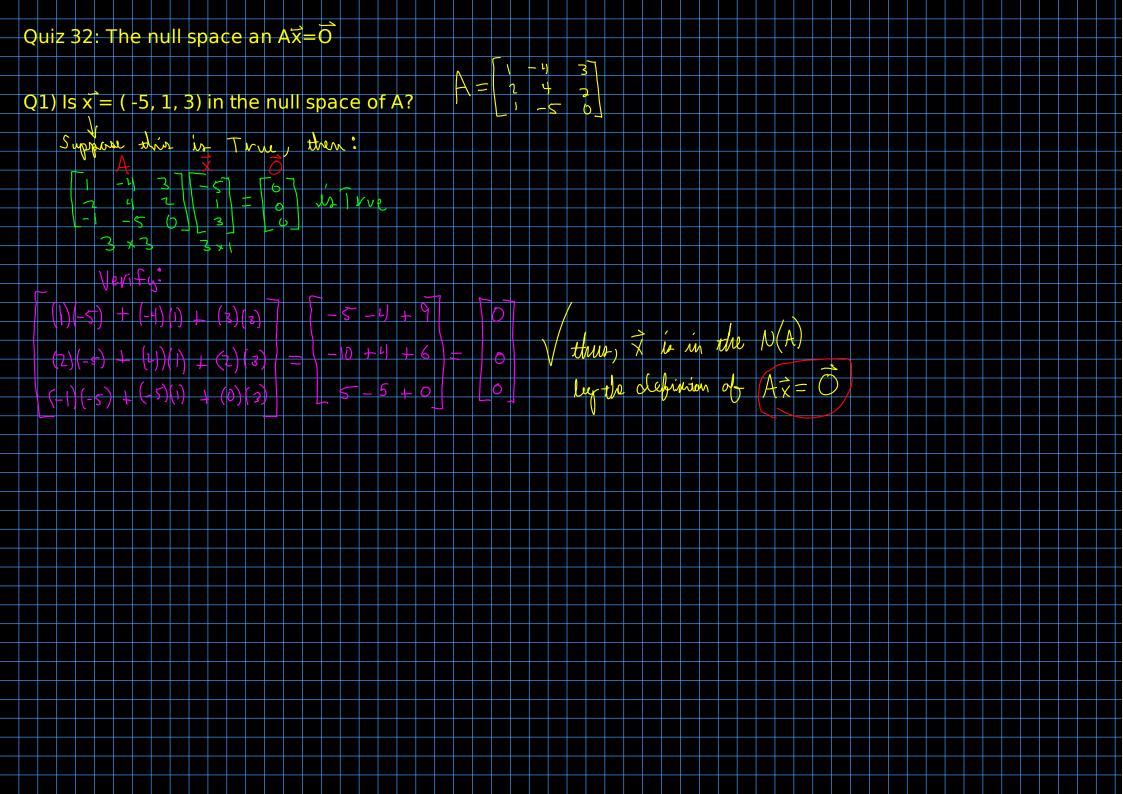
$$= \begin{bmatrix} -5 & +9 & +5 & -24 \\ 0 & -12 & -10 & -1 \end{bmatrix} = \begin{bmatrix} -15 \\ -26 \end{bmatrix} = \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix}$$

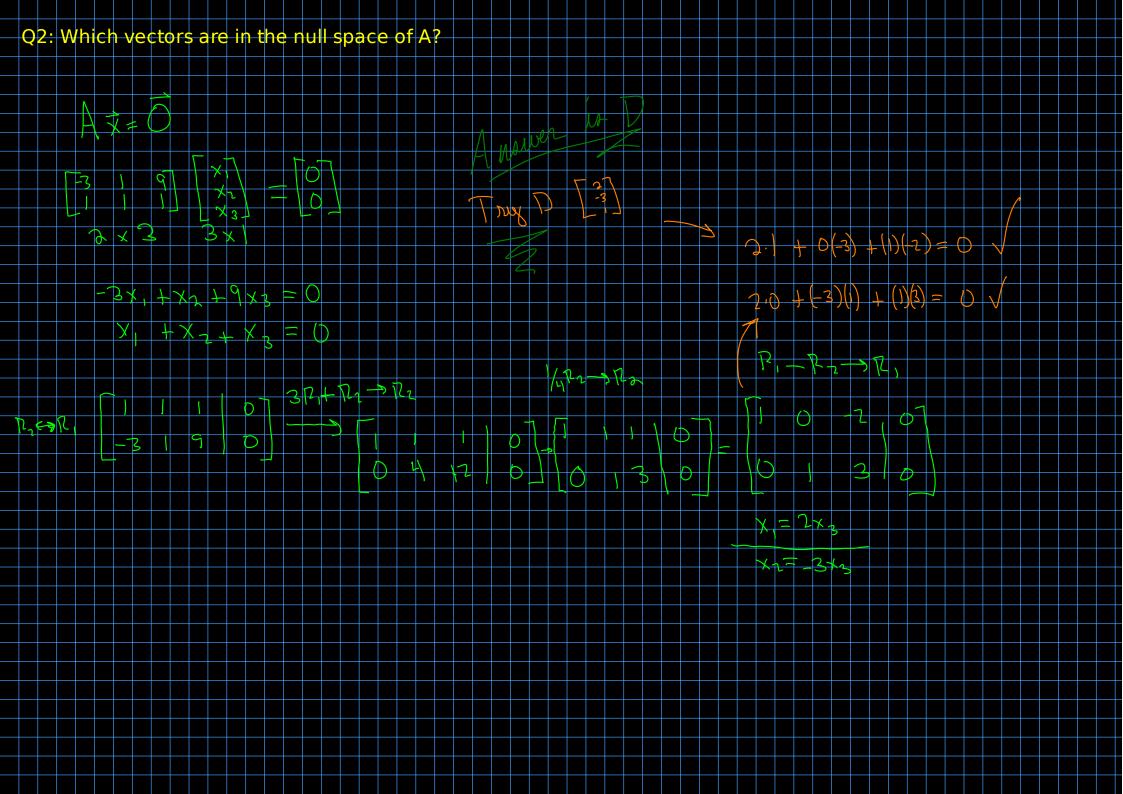
+ (4)(-3) + (-2)(5) + (1)(-4)

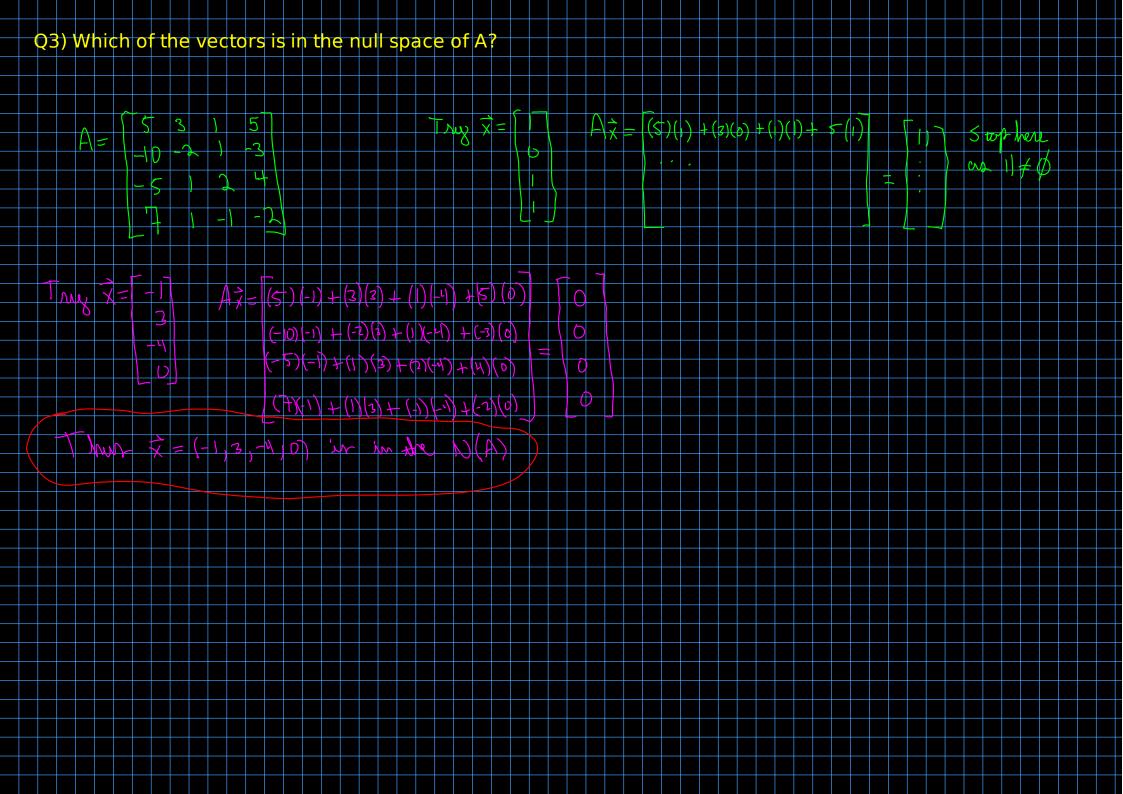
(v)(1)



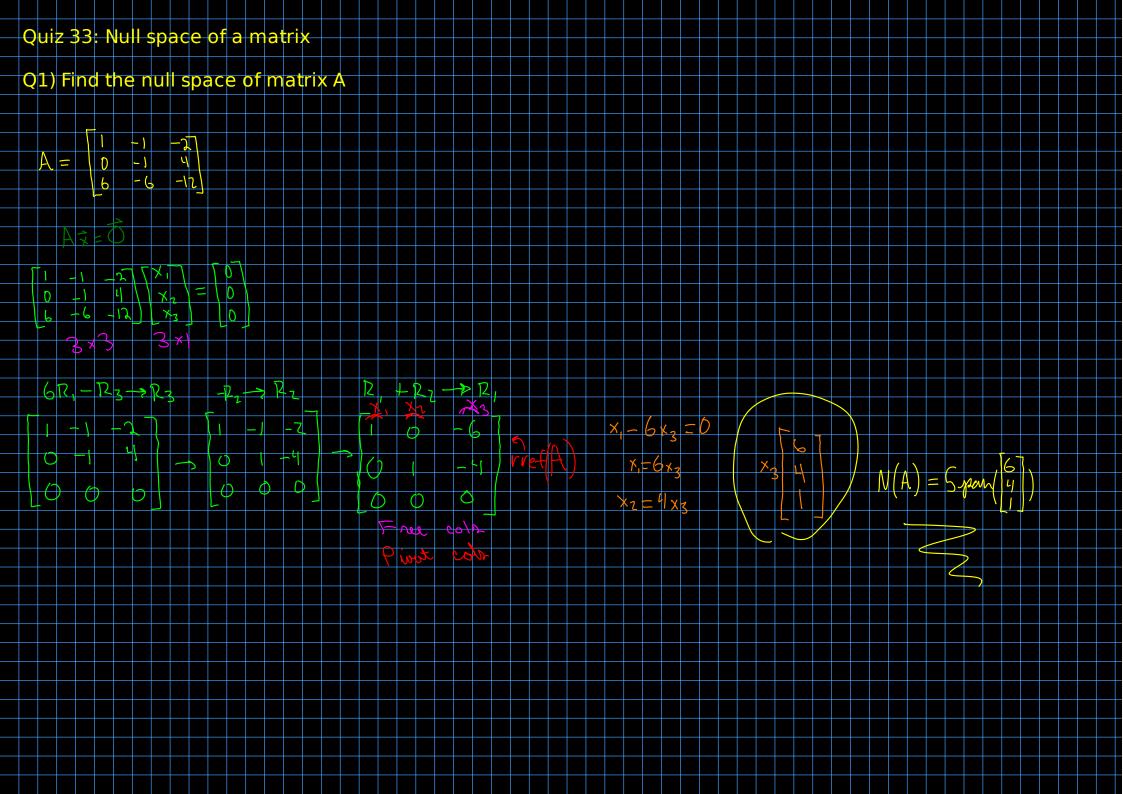


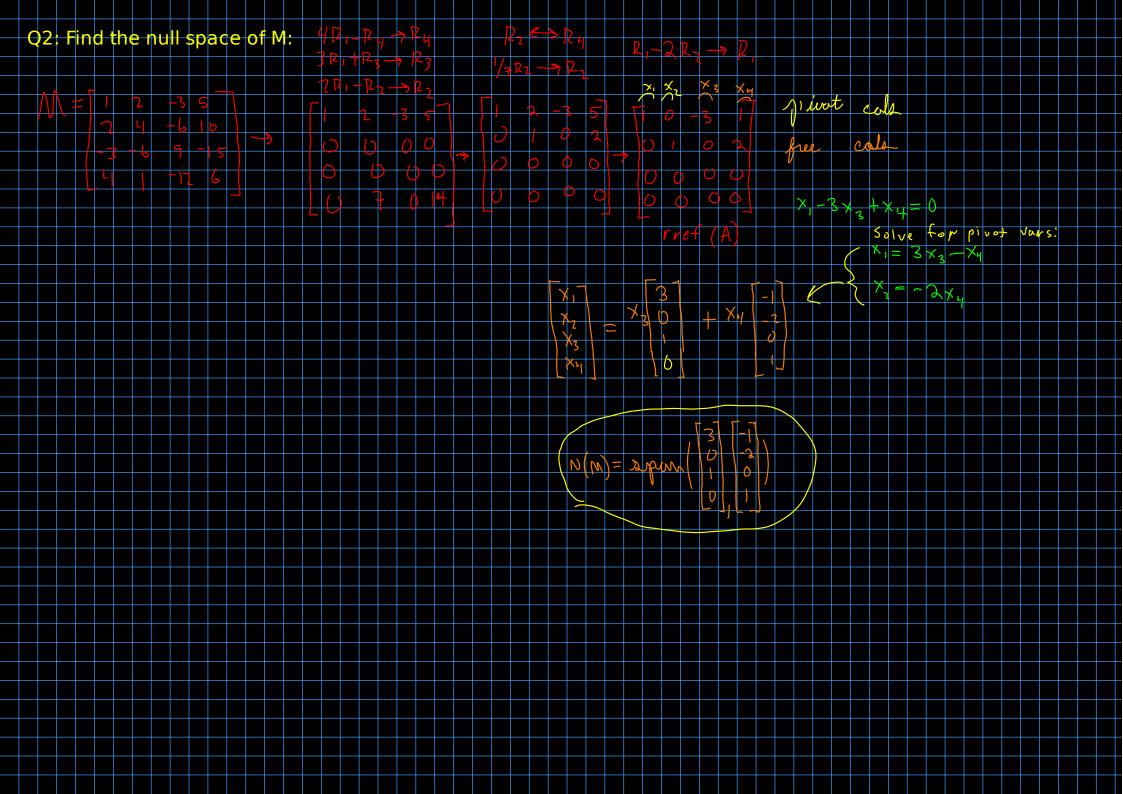


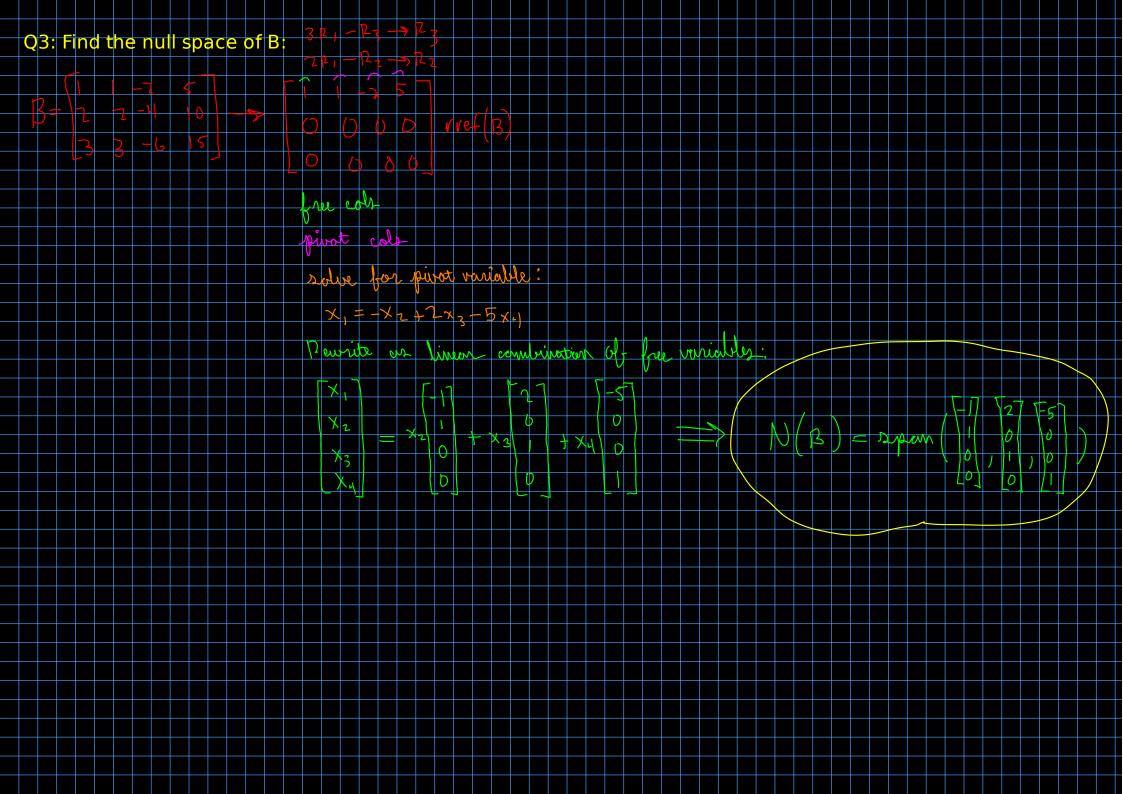


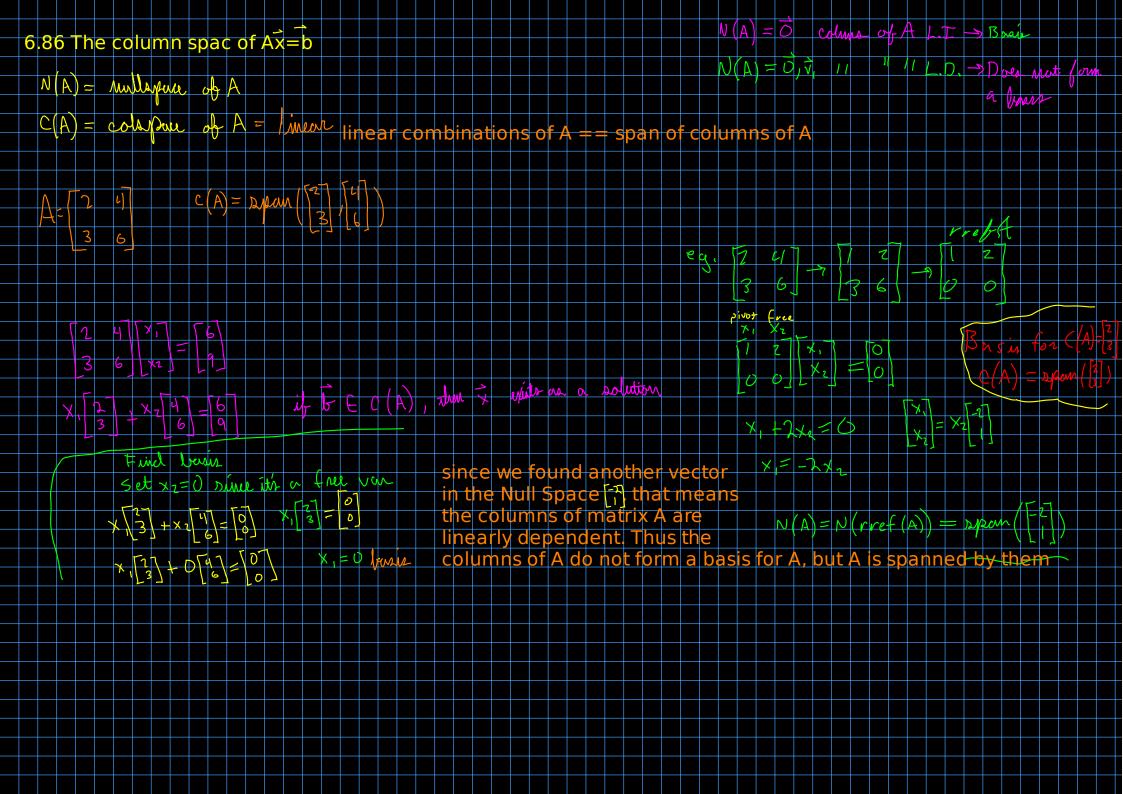


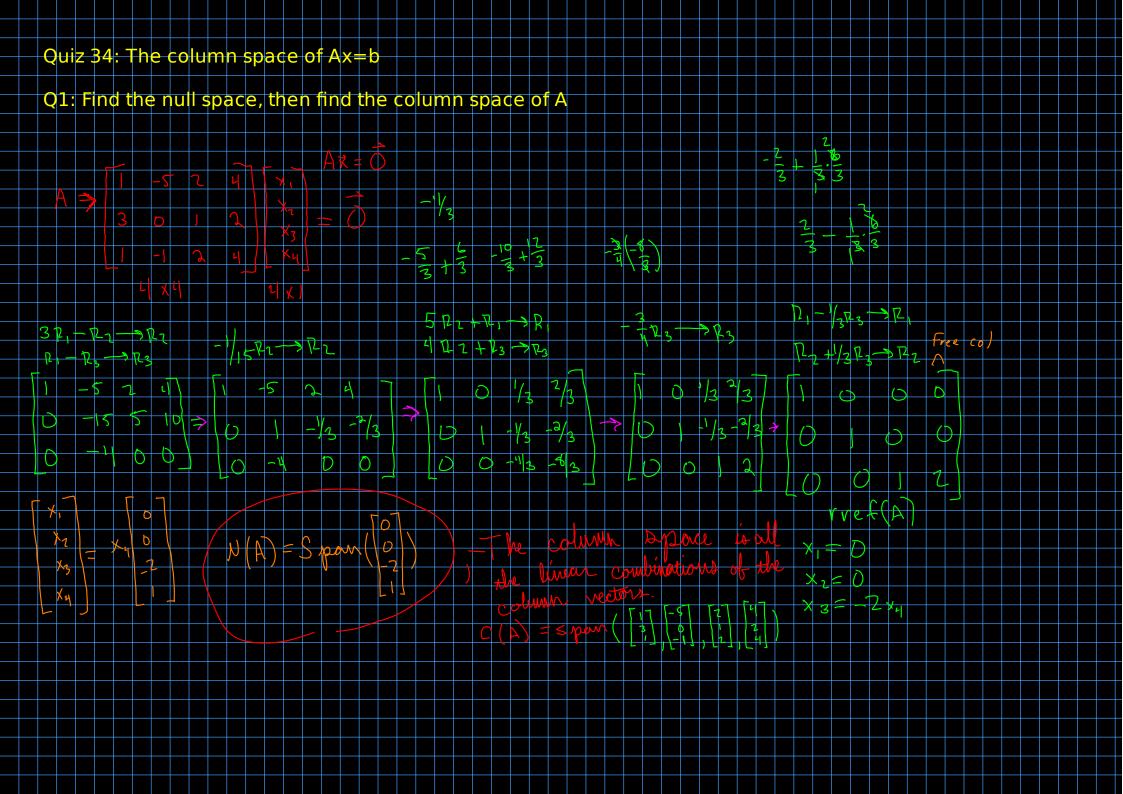


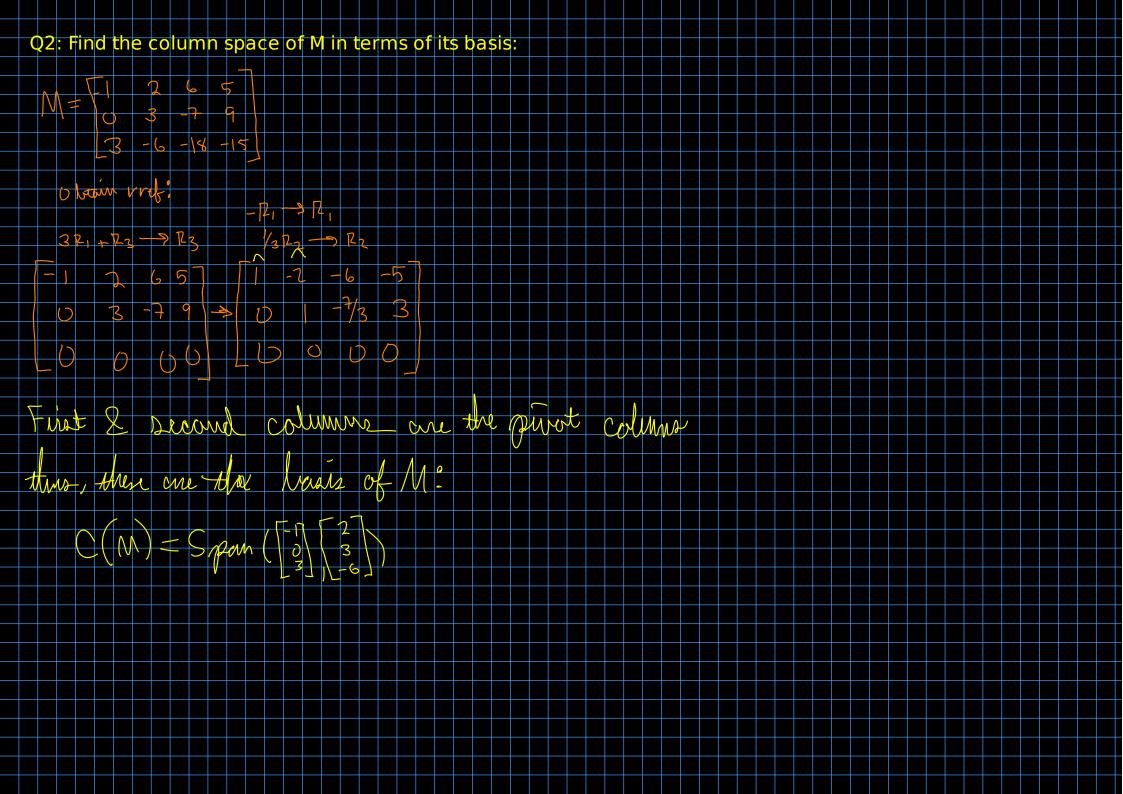


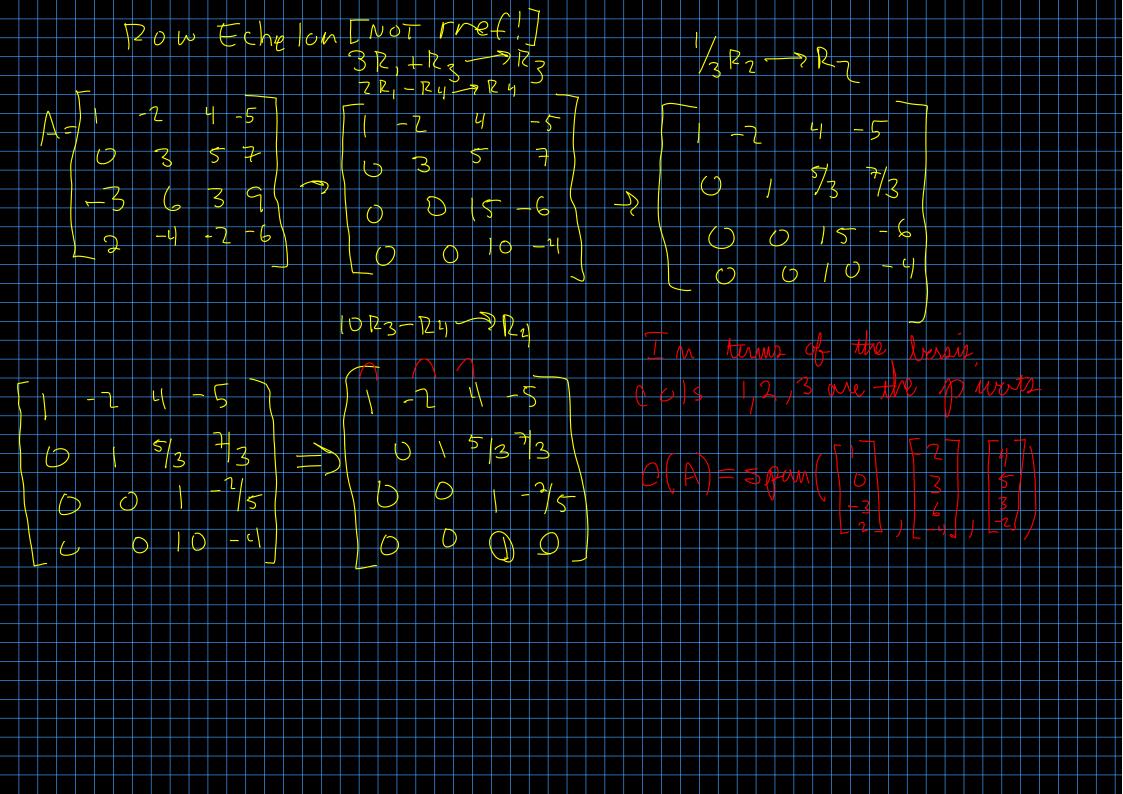


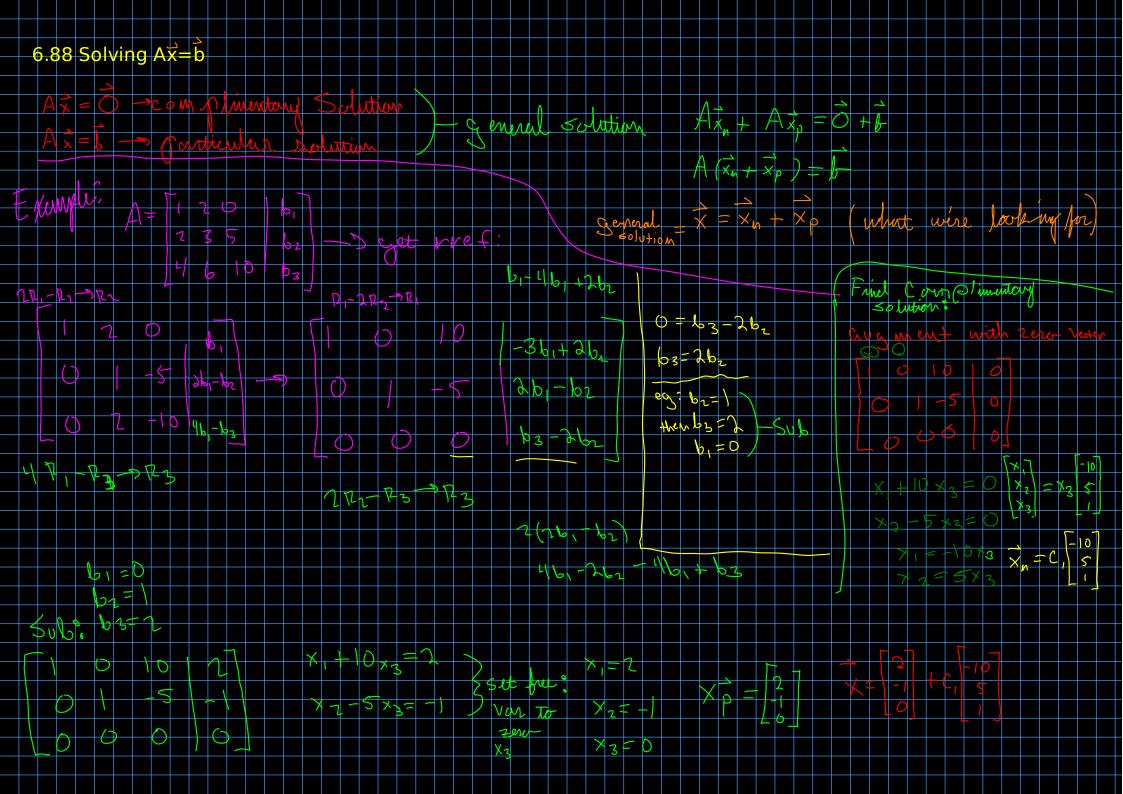


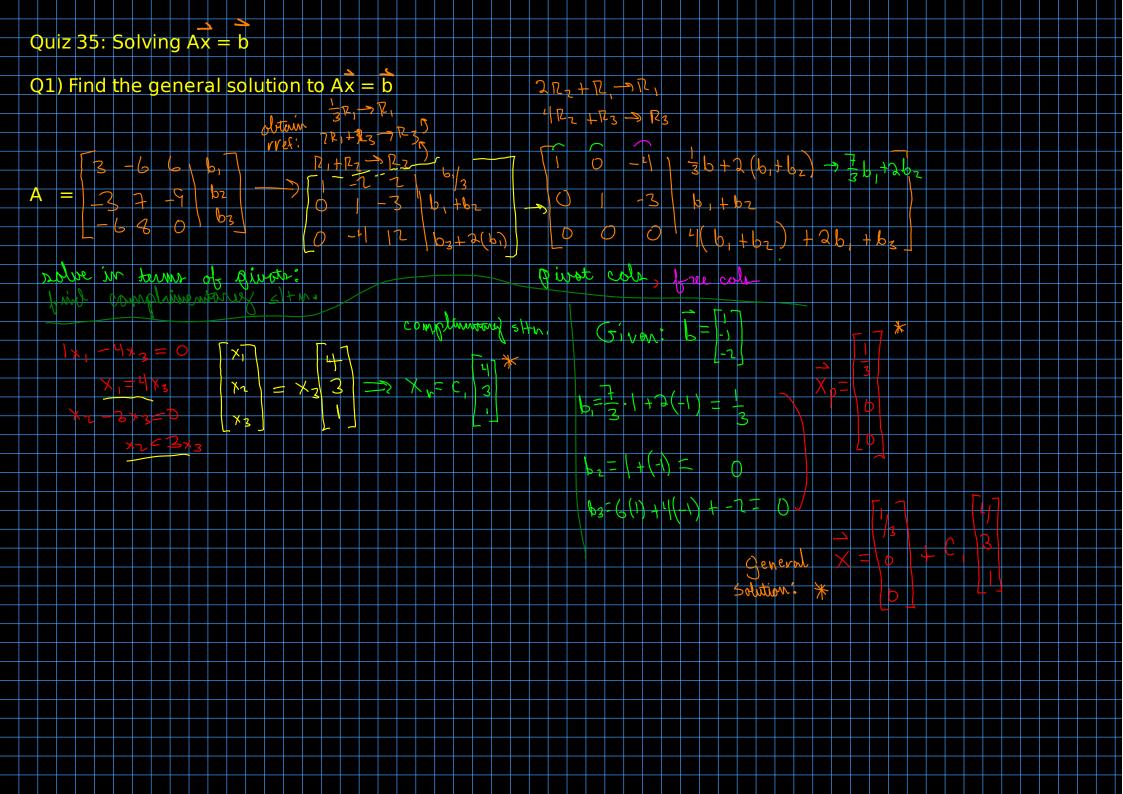


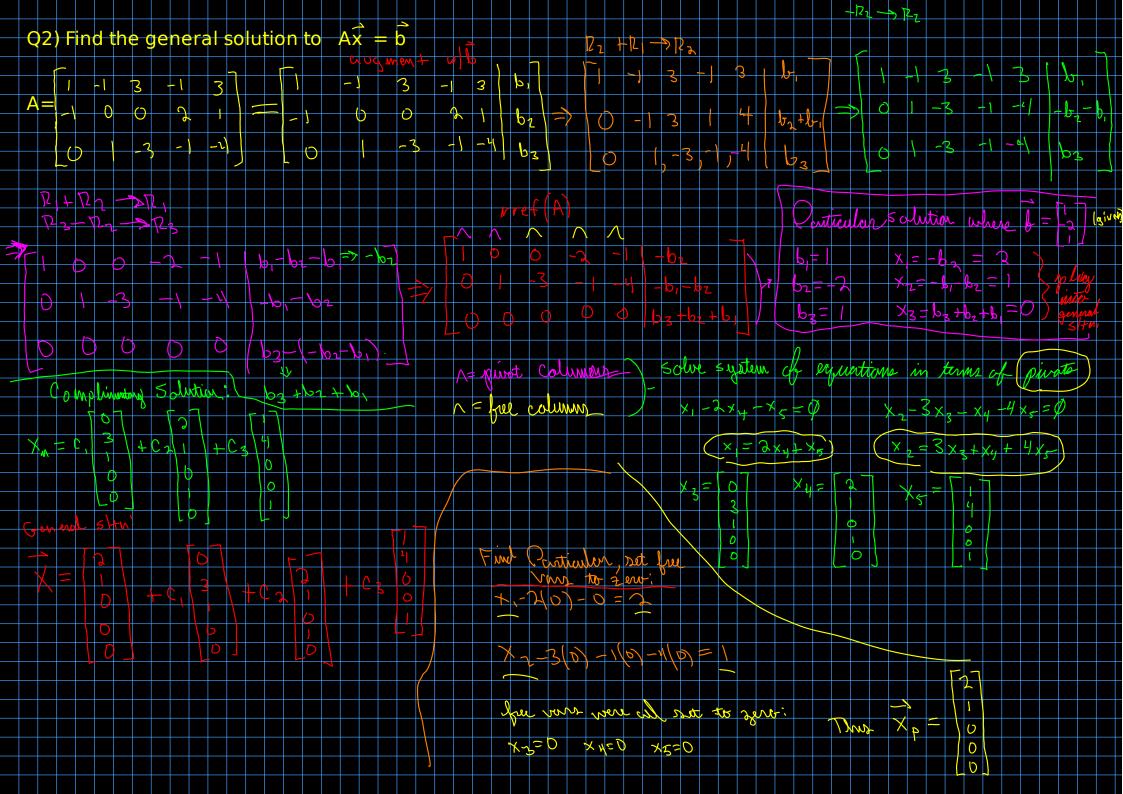


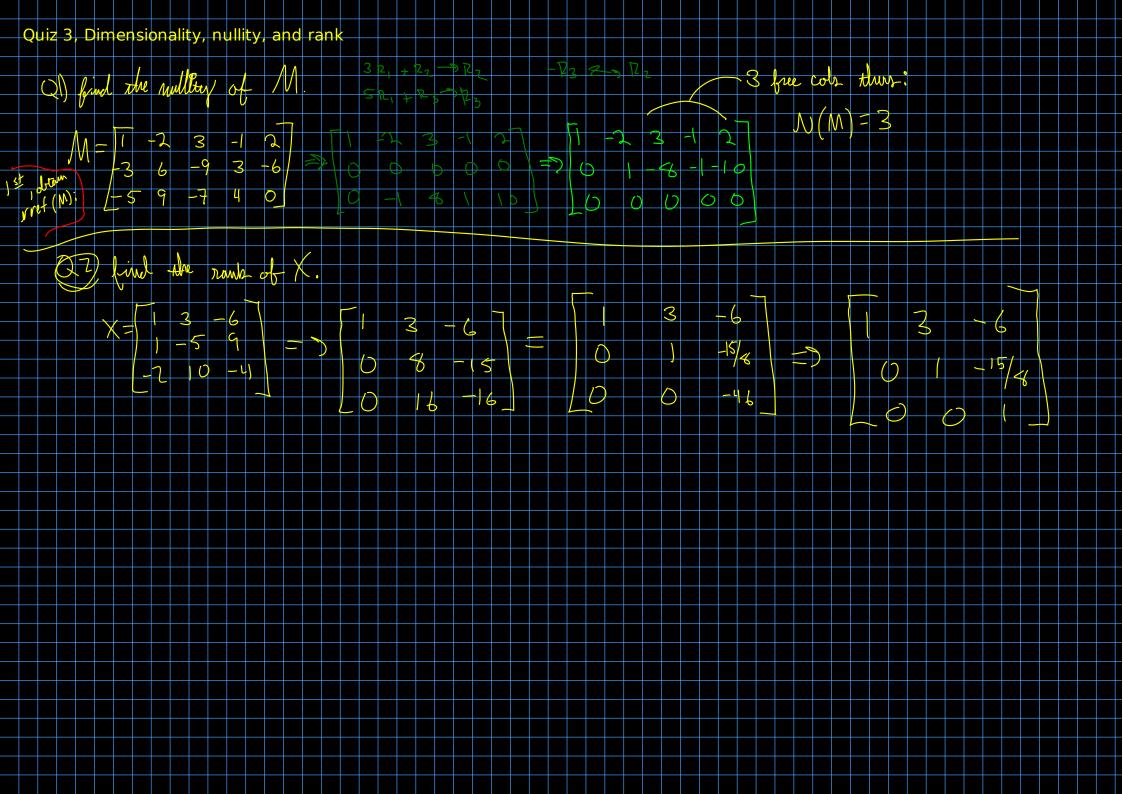












## Find the nullity and rank of A:

A = 0 | 0 | 5 | -3 | 0 | 5 | -3 |

$$3 \text{ pint col}$$
:  $r(A) = 3$ 

2 fue cole: 
$$N(A) = 2$$

