17/Mar/2022

Tarea
Desarrollar la multiplicación de la matriz A por la matriz C
(A)(C)

$$A=\begin{bmatrix}1 & 3 & -5\\ 4 & -2 & 1\\ -3 & 0 & 5\end{bmatrix} \qquad C=\begin{bmatrix}1 & 0 & 1\\ 2 & 1 & 3\\ 5 & 2 & 1\end{bmatrix}$$

$(A)(C) = a_{11} = (1)(1)+(3)(2)+(-5)(5)$
$a_{11} = 1 + 6 - 25$
$a_{11} = -18$

$a_{12} = (1)(0)+(3)(1)+(-5)(2)$
$a_{12} = 0 + 3 - 10$
$a_{12} = -7$

$a_{13} = (1)(1)+(3)(3)+(-5)(1)$
$a_{13} = 1 + 9 - 5$
$a_{13} = 5$

$a_{21} = (4)(1)+(-2)(2)+(1)(5)$
$a_{21} = 4 - 4 + 5$
$a_{21} = 5$

$a_{22} = (4)(0)+(-2)(1)+(1)(2)$
$a_{22} = 0 - 2 + 2$
$a_{22} = 0$

$a_{23} = (4)(1)+(-2)(3)+(1)(1)$
$a_{23} = 4 - 6 + 1$
$a_{23} = -1$

$a_{31} = (-3)(1)+(0)(2)+(5)(5)$
$a_{31} = -3 + 0 + 25$
$a_{31} = 22$

$a_{32} = (-3)(0)+(0)(1)+(5)(2)$
$a_{32} = 0 + 0 + 10$
$a_{32} = 10$

$a_{33} = (-3)(1)+(0)(3)+(5)(1)$
$a_{33} = -3 + 0 + 5$
$a_{33} = 2$

$$(A)(C)=\begin{bmatrix}-18 & -7 & 5\\ 5 & 0 & -1\\ 22 & 10 & 2\end{bmatrix}$$