

Adam Evans 2005959

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(iii) $3 \times \boxed{3} \times 2 \quad \checkmark \quad AC$

$$A = \begin{pmatrix} 2 & -5 & 3 \\ -5 & 0 & 5 \\ 3 & 0 & 2 \end{pmatrix}$$

$$C = \begin{pmatrix} 12 & 5 \\ -3 & 2 \\ 2 & 5 \end{pmatrix}$$

$$24 + 15 + 6$$

$$10 - 10 + 15$$

$$-60 + 0 + 10$$

$$-10 + 0 + 25$$

$$36 + 0 + 4$$

$$15 + 0 + 10$$

$$AC = \begin{pmatrix} 45 & 15 \\ -50 & 15 \\ 40 & 25 \end{pmatrix}$$

(iv) $CA \quad 3 \times \boxed{2} \times 3$ can not be multiplied.

(v) $|A| \quad A = \begin{pmatrix} 2 & -5 & 3 \\ -5 & 0 & 5 \\ 3 & 0 & 2 \end{pmatrix}$

$$|A| = 2(0 \times 2 - 0 \times 5) + 5(-5 \times 2 - 3 \times 5) + 3(-5 \times 0 - 3 \times 0)$$

$$= 2(0) + 5(-25) + 3(0)$$

$$= 0 - 20 + 0$$

$$= -20$$