If $A = [a_{ij}]_{3X3}$ is a scalar matrix with $a_{11} = a_{22} = a_{33} = 2$ and $A\ adj(A) = kI_3$, then k is equal to :

Solution:

$$A = \begin{bmatrix} 2 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 2 \end{bmatrix} \qquad A\ adj\ (A) = |A|I_n$$

$$\left.\begin{array}{l} A\ adj(A) = 8I_3 \\ \\ A\ adj(A) = kI_3 \end{array}\right\} \quad k = 8$$

A 7

B 8

C 2

D -1

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