



The inverse of  $\begin{bmatrix} 3 & 0 & 2 \\ 2 & 0 & -2 \\ 0 & 1 & 1 \end{bmatrix}$  is

Solution:

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} = \begin{bmatrix} \frac{1}{5} & \frac{1}{5} & 0 \\ -\frac{1}{5} & \frac{3}{10} & 1 \\ \frac{1}{5} & -\frac{3}{10} & 0 \end{bmatrix} \cdot A$$

This is of the form  $I = A^{-1} \cdot A$

$$A^{-1} = \begin{bmatrix} \frac{1}{5} & \frac{1}{5} & 0 \\ -\frac{1}{5} & \frac{3}{10} & 1 \\ \frac{1}{5} & -\frac{3}{10} & 0 \end{bmatrix}$$

A

$$\begin{bmatrix} \frac{1}{5} & \frac{1}{5} & 0 \\ -\frac{1}{5} & \frac{3}{10} & 1 \\ \frac{1}{5} & -\frac{3}{10} & 1 \end{bmatrix}$$

B

$$\begin{bmatrix} -\frac{1}{5} & \frac{1}{5} & 1 \\ -\frac{1}{5} & \frac{3}{10} & 1 \\ \frac{1}{5} & -\frac{3}{10} & 0 \end{bmatrix}$$

C

$$\begin{bmatrix} \frac{2}{5} & \frac{3}{5} & -1 \\ -\frac{1}{5} & \frac{3}{5} & 1 \\ \frac{1}{5} & -\frac{3}{10} & 0 \end{bmatrix}$$

D

$$\begin{bmatrix} -\frac{1}{5} & \frac{2}{5} & 0 \\ -\frac{3}{5} & \frac{3}{10} & 1 \\ \frac{1}{5} & -\frac{3}{10} & 0 \end{bmatrix}$$