If $\begin{pmatrix} x^2+x & x \\ 3 & 2 \end{pmatrix} + \begin{pmatrix} 0 & -1 \\ -x+1 & x \end{pmatrix} = \begin{pmatrix} 0 & -2 \\ 5 & 1 \end{pmatrix}$ then, x is equal to :

Solution :

$$\begin{pmatrix} x^2+x & x \\ 3 & 2 \end{pmatrix} + \begin{pmatrix} 0 & -1 \\ -x+1 & x \end{pmatrix} = \begin{pmatrix} 0 & -2 \\ 5 & 1 \end{pmatrix}$$

$$\begin{pmatrix} x^2+x & x-1 \\ -x+4 & 2+x \end{pmatrix} = \begin{pmatrix} 0 & -2 \\ 5 & 1 \end{pmatrix}$$

$$x^2 + x = 0 \qquad \Rightarrow x = 0, -1$$

$$x - 1 = -2 \qquad \Rightarrow x = -1$$

$$-x + 4 = 5 \qquad \Rightarrow x = -1$$

$$2 + x = 1 \qquad \Rightarrow x = -1$$

$$\therefore x = -1$$

A -1

B 0

C 1

D -2

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