

Page: ©

② $A^2 - A + I = 0$ then $A^{-1} = ?$

Soln. $A^2 - A + I = 0$

$$I = A - A^2$$

$$I \cdot A^{-1} = A \cdot A^{-1} - A \cdot A \cdot A^{-1}$$

formulas used.

$$\left\{ \begin{array}{l} I \cdot A = A \cdot I = A \\ A \cdot A^{-1} = I \end{array} \right.$$

$$\boxed{A^{-1} = I - A} \quad \underline{\text{Ans}}$$