## 1 Uniqueness of Inverse Matrix

Show that an invertible matrix  $A \in \mathbb{F}^{n \times n}$  has exactly one inverse matrix.

## **Solution:**

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solution  \begin{aligned} &\text{Sup-} \\ &\text{pose} \\ &BA = \\ &I_n \\ [=&[=&[\text{and} \\ &AC = \\ &I_n, \\ &\text{then} \end{aligned}   B = BI_n = B(AC) = (BA)C = I_nC = C.
```