

EXERCISE 3.4

1. Matrices A and B will be inverse of each other only if
(A) $AB = BA$ (B) $AB = BA = 0$
(C) $AB = 0, BA = I$ (D) $AB = BA = I$
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Answer: D

We know that if A is a square matrix of order m , and if there exists another square matrix B of the same order m , such that $AB = BA = I$, then B is said to be the inverse of A . In this case, it is clear that A is the inverse of B .

Thus, matrices A and B will be inverses of each other only if $AB = BA = I$.

