QUESTION

Show that if the $n \times n$ matrix A is invertible then $\det(A^{-1}) = (\det A)^{-1}$.
[Hint: consider $AA^{-1} = I$.]

ANSWER

$\det AB = \det A \times \det B$, so $1 = \det I = \det(AA^{-1}) = \det A \times \det A^{-1}$.