

matrices. So  $A$  is the result of applying the corresponding row ops to  $I$  and  $AB$  is the result of applying them to  $B$   
so  $\det(AB) = \det(A) \det(B)$



(e.g.  $\det(ABC) = \det((AB)C) = \det(AB) \det(C)$   
 $= \det A \det B \det C$ .)

Remark: If  $A$  is invertible,  
then  $\det(A^{-1}) = \det(A)^{-1} = \frac{1}{\det(A)}$   
since  $\det(A^{-1}) \det(A) = \det(A^{-1}A) = \det(I) = 1$