



## MATRIX DETERMINANT OF PRODUCT

**Why**

TODO

**Result**

**PROPOSITION 1.** *The determinant of a product of two real matrices is the product of the determinant of each matrix.*

*Proof.* Let  $A \in \mathbf{R}^{n \times p}$  and  $B \in \mathbf{R}^{p \times n}$ . We want to show that

$$\mathbf{det}(AB) = \mathbf{det}(A) \mathbf{det}(B).$$

TODO

□

