

Exercises

E18.28 [1MT] Difficulty:*. Show that

$$\det(\exp(A)) = \exp(\operatorname{tr}(A)) \quad .$$

Hint: use Jacobi's formula [1V2] to calculate the derivative of $\det(\exp(tA))$. Use the previous result [1MK] — see also [1T3]. Another proof can be obtained by switching to Jordan's form (using [1MJ]).

Solution 1. [1MV]