# On an axiomatic definition of the determinant

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The well known and important determinant function can be defined in a number of ways - there are the combinatorial, geometric and a few of axiomatics definitions. We give a possibly new (or rarely mentioned, see [1], [2]) axiomatic definition of the determinant function which is based on the multiplicative property and values for the elementary matrices. The logical structure of the determinant theory based on this definition is outlined.

# References

[1] W. A. Coppel, *Number Theory: An Introduction to Mathematics*, Springer, 2009.

[2] A. I. Kostrikin, *Vvedenie v algebru*, Fizmatlit, 2000.