On the transitivity of perspective mappings.

Ann. of Math. (2) 41, (1940). 87–93

This note gives a proof of the statement: If in a continuous geometry \( a_1 \sim a_2, a_2 \sim a_3, \ldots, a_n \sim a_{n+1} \) and \( a \cdot a_{n+1} = \prod_{i=1}^{n+1} a_i \), then \( a_1 \sim a_{n+1} \). This proof differs from that given in the set of notes by J. v. Neumann [Continuous Geometry, Princeton, N. J., 1936] in a number of respects. For instance, the notions of independence and decomposition are considered modulo \( c \) and by transfinite induction it is shown that, if countable continuity on the lattice operations is replaced by \( \Omega \) continuity for any cardinal \( \Omega \), the result still holds.

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