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Bourchtein, Ludmilla

Real and complex planes and hyperplanes. (Planos e hiperplanos reais e complexos.)

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The study of the structure of n -dimensional complex space C^n and the different objects in this space is very important, both for analysis of properties of C^n and for investigations of functions of n complex variables. In this article, real and complex planes and hyperplanes in the space C^n are considered. In particular, equations for complex line and real two-dimensional plane are constructed. The following statement is proved: any two distinct complex lines can have at most one common point in the space C^n ($n \geq 2$). One example shows that a similar statement is not true for two distinct real two-dimensional planes in C^n .

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