WHEN IS THE PRODUCT OF TWO CONCAVE FUNCTIONS CONCAVE?

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In honor to Professor Victor Klee

Abstract. In this paper we prove the following results concerning the product $f_1 f_2$ of two concave functions $f_1$and $f_2$defined in a non compact convex set $K$of R^n. The first result states that necessary and sufficient condition for the product $f_1 f_2$ of two linear affine function to be a mayorant that the product of any convex combinations is greater or equal to the combination of the product that they have to be Gonzi.

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