



Infimum problems derived from the proofs of some generalized Schwarz inequalities

ZOLTÁN BOROS and ÁRPÁD SZÁZ

Abstract. We define

$$f_{(a,b)}(r) = ar + b/r$$

for all $a, b, r \in \mathbb{R}$ with $r > 0$.

And, for some subsets A of \mathbb{R} , we determine

$$F_{A_+}(a, b) = \inf_{r \in A_+} f_{(a,b)}(r),$$

where $A_+ = \{r \in A : r > 0\}$.

The above infima are mainly motivated by the proofs of some recent generalized Schwarz inequalities established by the present authors.

Key words and phrases: Infimum problems, Schwarz inequalities.

ZDM Subject Classification: I35.

ZOLTÁN BOROS
INSTITUTE OF MATHEMATICS, UNIVERSITY OF DEBRECEN
H-4002 DEBRECEN, PF. 400, HUNGARY

E-mail: zboros@science.unideb.hu

ÁRPÁD SZÁZ
INSTITUTE OF MATHEMATICS, UNIVERSITY OF DEBRECEN
H-4002 DEBRECEN, PF. 400, HUNGARY

E-mail: szaz@science.unideb.hu

The works of the authors have been supported by the Hungarian Scientific Research Fund (OTKA) Grant K-111651.

(Received October, 2018)