On the intersection of finitely generated free groups. Addendum.

By HANNA NEUMANN in Hull.

In a recent note[1]) I had given a modified proof of A. G. Howson's result[2]) that the intersection of two finitely generated subgroups of a free group is itself finitely generated. If the two groups are denoted by U and V, their intersection by W, and their respective ranks by m, n, and N, one has more precisely $N \leq 2mn - 2m - n + 1$; under a certain restrictive assumption this could be improved to $N \leq 2mn - 2m - 2n + 3$.

I am indebted to Prof. R. Baer for pointing out that in fact this latter result holds without restriction. To see this, one merely has to choose the inner automorphism ξ of the whole free group (cf. the end of §1, loc. cit.) so that the intersection $W = U \cap V$ is transformed into a group W_1 of non-negative order $o(W_1)$; the transformed groups U_1 and V_1 will then a fortiori have non-negative orders, that is the first case of §2, and consequently the improved bound for N, is obtained.

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[1]) *Publicationes Mathematicae* 4 (1956), 186—189.

[2]) *J. London Math. Soc.* 29 (1954), 428—434.