1. The SMSG Spanish language texts are an excellent guide to secondary school teachers. They are conducive to an ordered, unified presentation of class material—thus remedying a serious defect of present practices.

2. The average Chilean seventh and eighth grade student is totally unfamiliar with the use of textbooks in mathematics education. The introduction of individual copies of a comprehensive text did not alter this situation. Perhaps what is needed is a three- or four-year graduated program to introduce the use of textbooks to students. The first step would be the occasional use of short pamphlets to simplify one or two elusive concepts.

3. Two types of "occasional novel classroom experiences" were tried. These were talks by working mathematicians, the success of which depended mostly on the mathematician's ability to relate to thirteen-year-olds, and math laboratories, which were used for the first time in Chile and met with enthusiastic student response.

4. The time is still not ripe in Chile for new materials development in mathematics on a national scale. Small materials preparation projects should be encouraged, then ruthlessly evaluated by controlled classroom use.

5. It is as easy to mechanize and ritualize new teaching methods as old ones, and even the well-intentioned often fall prey to this deadening tendency.

Anyone interested in more detail about the experiment may write Profesora Villarroel in care of the Dirección de Enseñanza Secundaria, Ministerio de Educación, Santiago de Chile.

FURTHER TECHNIQUES IN THE THEORY OF BIG GAME HUNTING

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Interest in the problem of big game hunting has recently been reawakened by Morphy's paper in this MONTHLY, Feb. 1968, p. 185. We outline below several new techniques, including one from the humanities. We are also in possession of a solution by means of Bachmann geometry which we shall be glad to communicate to anyone who is interested.

1. (Moore-Smith method) Letting A = Sahara Desert, one can construct a net in A converging to any point in $\overline{A}$. Now lions are unable to resist tuna fish, on account of the charged atoms found therein (see Galileo Galilei, *Dialogues Concerning Tuna's Ionses*). Place a tuna fish in a tavern, thus attracting a lion. As noted above, one can construct a net converging to any point in a bar; in this net enmesh the lion.

2. (Method of analytical mechanics) Since the lion has nonzero mass it has moments of inertia. Grab it during one of them.

3. (Mittag-Leffler method) The number of lions in the Sahara Desert is finite, so the collection of such lions has no cluster point. Use Mittag-Leffler's theorem to construct a meromorphic function with a pole at each lion. Being a

tropical animal a lion will freeze if placed at a pole, and may then be easily taken.

4. (Method of natural functions) The lion, having spent his life under the Sahara sun, will surely have a tan. Induce him to lie on his back; he can then, by virtue of his reciprocal tan, be cot.

5. (Boundary value method) As Dr. Morphy has pointed out, Brouwer's theorem on the invariance of domain makes the location of the hunt irrelevant. The present method is designed for use in North America. Assemble the requisite equipment in Kentucky, and await inclement weather. Catching the lion then readily becomes a Storm-Louisville problem.

6. (Method of moral philosophy) Construct a corral in the Sahara and wait until autumn. At that time the corral will contain a large number of lions, for it is well known that a pride cometh before the fall.

PROBLEMS AND SOLUTIONS

EDITED BY E. P. STARKE

All problems (both elementary and advanced) proposed for inclusion in this Department should be sent to E. P. Starke, 1000 Kensington Ave., Plainfield, N. J. 07060. Proposers of problems are urged to enclose any solutions or information that will assist the editors. Ordinarily, problems in well-known textbooks and results in generally accessible sources are not appropriate for this Department. No solutions (except those accompanying proposals) should be sent to Professor Starke.

ELEMENTARY PROBLEMS

Solutions of Elementary Problems should be sent to Problems Group, Mathematics Department, University of Maine, Orono, Maine 04473. To facilitate their consideration, solutions of Elementary Problems in this issue should be typed or written legibly on separate, signed sheets and should be mailed before February 28, 1969. Contributors (in the United States) who desire acknowledgement of receipt of their solutions are asked to enclose self-addressed stamped postcards.

E 2115. *Proposed by K. M. Brown, Cornell University*

Let a sequence $\{S_n\}$ be defined by

$$S_n = \frac{n+1}{2^{n+1}} \sum_{i=1}^{n} 2^i/i, \qquad n = 1, 2, \cdots.$$

Show that $\lim_{n\to\infty} S_n$ exists and find the value of this limit.