## **Notes from around Canada**

The editor of Plus + + + supplied us with the following material and encouraged us to include it in Delta-K. He hopes to tell us about important events, research, curriculum development and items of national interest. For this, he needs your help in sending information. Letters and material to the editor are welcome, and should be sent (in either French or English) to:

E. J. Barbeau, Editor University College, B201 University of Toronto Toronto, Ontario, M5S 1A1

## The Canadian Mathematics Education Study Group

Twice, in September, 1977 and in June, 1978, a group of mathematics educators, mostly from university mathematics departments and faculties of education, were invited to participate in conferences on the state of mathematical education research and teacher training in Canada. The proceedings of the first conference, Educating Teachers of Mathematics: The Universities' Responsibility, published by the Science Council, has appeared recently. This includes the texts of addresses by T.E. Kieren (University of Alberta), C. Gaulin (University of Laval), and A.J. Coleman (Queen's University) as well as the deliberations of the working groups.

At the second conference, besides invited addresses by G. Noelting (Quebec), G. Rising (Buffalo) and I. Weinzweig (Chicago), there were workshops at which discussions begun at the first conference on teaching, training, mathematization, and educational research were carried further.

In order to maintain the momentum of discussion and to keep the participants in touch, it was decided to form the Canadian Mathematics Education Study Group, a loose organiza-

tion that will function through local, regional and national initiatives.

Further information can be obtained from the organizers: Professor A.J. Coleman (Mathematics Department, Queen's University, Kingston, Ontario K7L 3N6), Professor W. Higginson (Faculty of Education, Queen's University) or Professor D. Wheeler (Mathematics Department, Concordia University, 1455 de Maisonneuve Blvd. W., Montreal, P.Q. H3G 1M8). The address of the Science Council is 150 Kent Street, 7th floor, Ottawa, Ontario K1P 5P4.

### **PERMAMA: Inservice Teacher Training**

In 1972, an innovative inservice teacher training programme, "PERfectionnement des MAîtres en MAthematique," (PERMAMA), was established by Téléuniversité du Québec, a branch of the University of Quebec. Intended for high school mathematics teachers, it is a credit programme leading to a certificate. Participants register for courses in one of 97 local or regional centres. They work through prepared modules and meet regularly for discussions directed by a "moniteur-animateur" at the centre. About 60 modules are currently available.

A fuller account is found in the Science Council of Canada report, Educating Teachers of Mathematics: The Universities' Responsibility or may be obtained from Professor Claude Gaulin, Faculté des Sciences de l'Education, Université Laval, Québec, P.Q. GIK 7P4.

### Survey of Educational Research in Canada

Dr. D.R. Drost, Department of Curriculum and Instruction, Memorial University, St. John's Nfld. A1B 3X8, is compiling a catalogue of Canadian research related to mathematics education. Please send a list of studies currently in progress or completed in the last five years, including name of researchers, title of study, grade level, and date. These might be graduate theses, personal published reports, both internal and external, or assessment studies. This is the first step of the research subgroup of the Canadian Mathematics Education Study Group toward making knowledge of the work of Canadian researchers more widespread.

#### Crux Mathematicorum

Crux Mathematicorum is a problems journal edited by Léo Sauvé and published ten times annually by Algon-

quin College under the sponsorship of the Carleton-Ottawa Mathematics Association (affiliated with O.A.M.E.). Besides some delightful problems contributed by readers, most of which are suitable for high school teachers and lively students, there are brief articles, many on elementary topics in geometry and number theory. The managing editor is F.G.B. Maskell, Mathematics Department, Algonquin College, 200 Lees Avenue, Ottawa, Ontario KIS OC5, to whom requests for subscriptions, sample copies, or further information may be sent. Bound-back volumes are available (Vol. I-II, \$10; Vol. III, \$10).

# Canadian Mathematical Society Education Committee

The Canadian Mathematical Society, the national organization of university mathematicians and sponsor of the Canadian Mathematical Olympiad, has recently re-established its standing education committee. It is chaired by Professor George Bluman of the Mathematics Department of the University of British Columbia. The committee is interested in determining the current state of mathematical education in schools across Canada and exploring avenues of cooperation between teachers, mathematical educators and research mathematicians.

#### Did You Know...

...an interesting mathematics-in-the-social-sciences topic can be found on pages 304-332 of the 1968 volume of the *Villanova Law Review?* There a lawyer, J. F. Banzhaf III, argued by means of permutations, combinations, and the computer that in the 1960 presidential election, a voter in New York State had 3.312 times the power of a voter in the District of Columbia. Banzhaf's measure of "power" just made its first appearance in a commercial textbook (M. L. Bittinger and J. C. Crown, *Finite Mathematics*, Addison-Wesley, 1977).

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