can lead to a new kind of sterile formalism in school mathematics. The need for and interest in mathematics must still come from familiar aspects of the child's environment.

Many new courses attempt to introduce topics from geometry and algebra at a much earlier grade level than has been traditional. Topics completely new to school mathematics are also appearing. It was felt very strongly by some speakers that the question of grade placement is not primarily "how early may a topic be introduced" but "when is the optimum time for introducing it". Introduction at this optimum time will lead both to the furthering of mathematical insight and its application in meaningful problem situations.

Secondly, much interest was shown in the role that programmed learning can take in the teaching of mathematics.

J. E. Forbes of the Britannica Centre stressed the following points: (a) programs are not just a new form of textbooks, they cannot do the whole job; (b) there is no doubt that many programs are dull, repetitive and make no provision for abler students to leave out unnecessary repetition; and (c) there is no simple "yes" or "no" regarding the use of programs, each teacher must decide the best use to which they can be put in a given classroom situation.

J. Fred Weaver expressed concern as to what extent programs will foster or repress creativity in mathematics. In particular, he questioned the ability of these programs to provide for flexibility of approach, divergent thinking and "tolerance for ambiguity".

TWO ALBERTANS RECEIVE NSF GRANTS

Each year the National Science Foundation in Washington, D.C., through its Academic Year Institute program, provides opportunities for teachers of science and mathematics to study fulltime for an entire academic year. This year about 1,700 experienced secondary school teachers and supervisors, and 100 experienced college teachers will be supported as participants. In addition, about 50 recent college graduates who are fully certified to teach, but who have had no teaching experience, will be granted support.

Under this latter category, two Albertans will study at Washington University, St. Louis, Missouri, from June 1962 to June 1963. One of these students, Halia Boychuk, received her bachelor of education degree in the May, 1962 convocation. Miss Boychuk is a native Albertan, having received all of her education in this province, at Cork and at Ashmont. She received a Governor-General's award in Grade IX and a Hotelman's Association scholarship in Grade XII. She served as secretary-treasurer of the students' union at Ashmont. Miss Boychuk has received a Queen Elizabeth scholarship during her years at the University of Alberta.

The other participant is Alexander J. Dawson. Mr. Dawson received all of his education in Edmonton. He took Grades VIII and IX in one year and completed high school at Victoria Composite High School in 1958. Then he entered the three-year general program, obtaining a bachelor of science degree, majoring in mathematics, in 1961. During the 1961-62 academic year, Mr. Dawson attended the Faculty of Education in the program leading to certification following an approved degree.

MATHEMATICS TOURNAMENT, CRESCENT HEIGHTS HIGH SCHOOL, CALGARY, by Sharon Brown

> Editor's Note: Miss Brown is a member of the Eleven A class at Crescent Heights.

The second Annual Mathematics Tournament between Crescent Heights High School and Viscount Bennett High School was held on Tuesday, April 17. It was won again by Crescent, by a score of 77 to 68. The highest individual score was a tie between Marlene Warren of Crescent and Michael Smith of Viscount with 23 points each.

Teams, composed of four members from each school, were selected by means of elimination contests held several days prior to April 17. The judges, three in number, were Miss Eva Jagoe (Viscount Bennett), Miss Olive Jagoe (Crescent Heights), and D. Dack (Central).

The contest consisted of a series of three ten-minute tests with a five-minute break between each. The spectators were also given copie of the tests to work and were given the solutions during the breaks.