ADEQUATE PREPARATION IN MATHEMATICS FOR STUDENTS ENTERING UNIVERSITY

R. C. Jacka*

*Mr. Jacka is associate professor of mathematics at the University of Alberta. This is a summary of his address at the conference.

Students should have some knowledge of the development of the number system beginning with the properties of the natural numbers and a logical construction of the integers, rational numbers, real numbers, and complex numbers from the foundation of natural numbers. The laws of algebra such as commutative law, associative law and distributive law should be known by name.

In trigonometry, less emphasis should be placed on numerical solution of triangles and more emphasis on graphs of the trigonometric functions, identities, and solution of trigonometric equations.

I would strongly recommend the addition of a course in Analytical Geometry and Elementary Calculus to the high school program even if it were only an option given in the large schools. For students entering the Faculty of Engineering or taking any course which requires physics in the first year, some prior knowledge of the calculus is very helpful.