

the volume of a cylindrical segment using two approaches, the author establishes that

$$\lim_{n \rightarrow \infty} \left(\frac{1}{3} \sum_{k=1}^n \frac{n^2 - k^2}{n^2} \right) = \frac{1}{3}$$

and so is able to solve problems not falling within the scope of (A). Secondly, the author establishes the Principle of Cavalieri, and then uses this principle to solve problems such as computing the area of an ellipse and the volume of an ellipsoid.

The formula $\sum_{k=1}^n \sin k\alpha = \frac{\sin \frac{n\alpha}{2} \sin \frac{(n+1)\alpha}{2}}{\sin \frac{\alpha}{2}}$ is developed; and

the result $\lim_{n \rightarrow \infty} \left(\frac{\sin \alpha}{\alpha} \right) = 1$, where $\lim_{n \rightarrow \infty} \left(\frac{\alpha}{n} \right) = 0$, is obtained by appeal to a diagram. On this basis, $\int_0^{\pi} \sin$ is computed.

An appealing feature of this short tract is the stress placed on the fundamental concept of integral calculus--"the notion of the limit of the sum of an indefinitely increasing number of limitlessly diminishing terms".

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Electronic Digital Computers, by G. D. Smirnov (translated from the Russian by G. Segal). Pergamon Press, Oxford, 1961. 97 pages. 42 sh.

This little book is an attempt to briefly describe some of the elements of design and function of digital computers in the U. S. S. R. There is a great deal of interest in computers in the Soviet Union today and modern machines such as the B. E. S. M., Strela and Ural are already in operation. Photographs of these three machines are shown. Topics such as components, arithmetic units, storage units, etc. are briefly dealt with, but on the whole I do not consider the book impressive. This is mostly due to its brevity in style since many topics are considered, but none are savoured. In addition, the quality of the printing is poor.

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