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BULLETIN (New Series) OF THE
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Hilbert's third problem, by Vladimir G. Boltianskiĭ (translated by Richard A. Silverman and introduced by Albert B. J. Novikoff), Scripta Series in Math., Wiley, New York, 1978, x + 228 pp., $19.95.

1. Since the response to the title of this book is invariably "What *is* Hilbert's third problem?", let us begin by considering the problem itself. Loosely speaking, it asks whether there is any way of deriving the formula for the volume of a tetrahedron without using calculus. Clearly there is no hope of avoiding all mention of limits in most questions of volume, for it is by appealing to a limit process that the very notion of volume is extended to any figure more general than a rectangular solid having rational edges. Analogously, limits are needed to extend the concept of area beyond rectangles having rational sides. Hilbert's problem acknowledges such fundamental