

# Huntington, Edward Vermilye I

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(b. Clinton, [New York](#), 26 April 1874; d. Cambridge, Massachusetts, 25 November 1952)

*mathematics.*

Huntington was the son of Chester Huntington and the former Katharine Hazard Smith. He received his A. B. and A. M. from Harvard in 1895 and 1897, and his Ph.D. from the University of Strasbourg in 1901. In 1909 he married Susie Edwards Van Volkenburgh. Almost all of Huntington's professional career was spent at [Harvard University](#), where he was an enthusiastic and innovative teacher; one of his interests is indicated by the title—unusual in a department of mathematics—of professor of mechanics, which he held from 1919 until his retirement in 1941. His interest in teaching was also reflected in his improvement of the format of the mathematical tables that he compiled or edited.

Huntington's major scientific work was in the logical foundations of mathematics. It is now common place to present a mathematical theory as consisting of the logical consequences of a set of axioms about unspecified objects, assumed to satisfy the axioms and nothing more. In spite of the example of Euclid, who tried to develop geometry in this way but did not completely succeed, the through axiomatization of a branch of mathematics was a novelty when Huntington's career began. He constructed sets of axioms for many branches of mathematics, one of which was Euclidean geometry, and developed techniques for proving their independence (that is, that no axiom is deducible from the others) and their completeness (that is, that they describe precisely the mathematical system that they are supposed to describe). His book *The Continuum* was for many years the standard introduction to the theory of sets of points and transfinite numbers.

Huntington was interested in the applications of mathematics to many different subjects. His most influential contribution was a mathematical theory of the apportionment of representatives in Congress. The Constitution states that "Representatives shall be apportioned among the several States according to their respective numbers" but does not specify how this is to be done. In the 1920's Huntington analyzed the problem and recommended the so-called method of equal proportions; in 1941 this method was adopted by Congress.

## BIBLIOGRAPHY

Huntington's writings include *The Continuum, and Other Types of Serial Order, With an Introduction to Cantor's Transfinite Numbers* (Cambridge, Mass., 1917), repr. from *Annals of Mathematics*, **6** (1905), 151–184; **7** (1905), 15–43; and "The Apportionment of Representatives in Congress," in *Transactions of the American Mathematical Society*, **30** (1928), 85–110.

R. P. Boas, Jr.