Sierpinski, Waclaw | Encyclopedia.com

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(*b*. Warsaw, Poland, 14 March 1882: *d*. Warsaw, 21 October 1969)

mathematics

Sierpinski was the son of Constatine Sierpinski, a prominent physician, and Luise Lapinska. He entered the University of Warsaw in 1900 and studied under G. Voronoi, an outstanding expert on number theory who influenced his career for the next decade or more. Sierpiński's important contributions to number theory (for in stance, in the theory of equipartition) were continued and developed in G.H. Hardy, Edmund Landau, and H. Weyl. In 1903 the university awarded Sierpiń a gold medal for mathematics: his abilities in this area were evident from childhood. He received his degree the following years.

Sierpiński's most important work, however, was in set theory, and 1908 he was the first to teach a systematic course on that subject. He investigated set theory and related domains (point-set topology, theory of functions of a real variable for fifty years: he devoted the last fifteen to number theory. He also served as editor in chief of *Actarithmetica*.

Sierpiń;ski published some six hundred papers on set theory and a hundred on number theory. The most important of his books and monographs on set theory are *Hypothése du continu* (1934) and *Cardinal and Ordinal Numbers* (1958). His chief work on number theory was *Elementary Theory of Numbers* (1964). His papers contained new and important theorems (some of which bear his name), geometrical constructions (Sierpiń ski curves), concepts and original and improved proofs of earlier theorems. His findings stimulated further research by his students and by mathematicians throughout the world.

Sierpiński was a foreign member of twelve academies of science (among them the French, the Lincei, and Pontifical), and he received honorary doctorates from ten universities (including Paris, Moscow, and Amsterdam). He was also elected vice-president of the Polish Academy of Sciences and was awarded the scientific prize of the first degree (1949) and the Grand Cross of the Order of Polonia Restitua (1958).

Sierpiń's career spanned more than sixty years; he lectured at the University of Lvov until 1914 and then, after World War I, at the University of Warsaw. He was considered an excellent and stimulating teacher. About 1920 Sierpiński, Janiszewski, and Mazurkiewicz created a Polish school of mathematics centered on foundations, set theory, applications, and also founded in 1919 a periodical to specialize in these areas, *Fundamenta mathematicae*, The first editor in chief was Janiszewski, and after his death in 1920 Sierpiń;ski and Mazurkiewicz carried on the work for decades.

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Kazimierz Kuratowski