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CALKINS, Helen. October 20, 1893–June 17, 1970.

KNOX COLLEGE (BA 1916), COLUMBIA UNIVERSITY (MA 1921), CORNELL UNIVERSITY (PHD 1932).

Helen Calkins was born in Quincy, Illinois, the first of two daughters of Anna Burns (Schermerhorn) (b. 1869) and Addison Niles Calkins (b. 1865), both of Illinois. Her parents married in October 1892. By 1900 her father was superintendent of Electric Wheelworks in Quincy. Her younger sister, Ruth Calkins, was born in 1901 and later attended a business college in Quincy.

Helen Calkins attended Quincy High School 1908–12 and Knox College in Galesburg, Illinois, 1912–16. The year after her 1916 college graduation with special honor in mathematics, she taught mathematics in junior high school in Quincy; the following year she taught mathematics in the senior high school in Jacksonville, Illinois. She then returned to Knox College, where she was instructor in mathematics 1918–20.

Calkins began her graduate work in mathematics as a university scholar at Columbia University in 1920–21. While there she studied history of mathematics and the teaching of mathematics with David Eugene Smith, fundamental concepts with Edward Kasner, and differential equations with W. B. Fite. She received her master's degree at the end of that academic year.

Calkins returned to Knox College as instructor in 1921. She was promoted to assistant professor in 1922 but took a leave of absence from Knox in 1923 to return to Columbia. While at Knox she developed a course in the history of mathematics inspired by her earlier work at Columbia with Smith. She again held a scholarship at Columbia in 1923–24, when she studied Einstein's theory, infinite series, differential equations, modern geometry, and the philosophy of mathematics. She continued her leave from Knox in 1924–25, when she traveled in the United States and Cuba. She attended Columbia part time during 1925–26 and traveled in Europe in the summer and fall of 1926.

In July 1926, in information submitted to the appointments bureau at Columbia, Calkins indicated that she would prefer to be near a good library, that she was a Presbyterian, and that she read and spoke German and Spanish. Calkins served as instructor at the University of Nebraska, substituting for someone on leave of absence, during the second semester 1926–27. By the summer of 1927 she had completed residency requirements for the PhD degree at Columbia.

Calkins was hired at Sweet Briar College for the year 1927–28 as professor of mathematics and acting head of the mathematics department, while [Eugenie M. Morenus](#) was on leave in England. [Julia Wells Bower](#) also joined the mathematics faculty at Sweet Briar in 1927 and remained the next three years until she left to start her doctoral work at the University of Chicago. Calkins earned a salary of \$2800 for the year and paid the college \$450 to cover the cost of her room, board and laundry at the college for the academic year. She lived in Professor Morenus's room, which was described by the president of Sweet Briar in a letter of June 27, 1927, as "a very attractive front room in one of the faculty houses, in which the dining-room is situated where about eighteen members of the faculty have their meals" (Faculty Files, Sweet Briar College Archives). There were also arrangements for her small coupe.

On January 17, 1930, the president of Sweet Briar summarized the quality of Calkins' work to a Chicago teacher's agency. "We were so much impressed with Miss Calkins' ability that it was with deep regret that we allowed her to leave. There is a lucidity of mind, an ability to present any matter with which she is dealing, a gentleness and charm of personality, and an all-round sanity that will go far in academic usefulness" (Faculty Files, Sweet Briar College Archives).

In the summer of 1928 Calkins enrolled at Cornell and took classes through the summer of 1930 as a scholarship holder. Her intended advisor, Charles F. Roos, left Cornell for the AAAS in 1930, at the same time that Calkins took a job as professor and acting head of the department of Pennsylvania College for Women in Pittsburgh. In May 1931 Roos was asked to stay on as her advisor, and he agreed to do so as long as someone else at Cornell assumed joint responsibility with him. On May 20, 1931, he wrote to F. K. Richtmyer, the dean of the graduate school, that Calkins was "working on a problem of maximizing a functional not of the ordinary calculus of variations type" and suggested David Clinton Gillespie as the person to be the official advisor since Calkins had taken a course in calculus of variations from him (Box 69 C-1-C-5-C, Graduate School Records, Division of Rare and Manuscript Collections, Cornell University Library). Roos then described some aspects of her progress and wrote, "I think that Miss Calkins' thesis is of unusual interest." In her dissertation, which was approved in October 1931, she acknowledges both Roos and Wallie Abraham Hurwitz, whom she later listed as a personal friend; the degree was awarded in February 1932.

Except for brief periods, Calkins spent the remainder of her career as professor and head of the department at Pennsylvania College for Women, where she was usually the only member of the mathematics department. It appears that upon her arrival she initiated a student mathematics club known as Beta Chi, which existed during most of her first decade there. She served on a number of standing faculty committees, especially those on the curriculum and the library. She also served on the advisory board. During the summer of 1941, Calkins worked as a statistician in engineering defense training at Pennsylvania State College. She spent 1943-44 at the University of Minnesota, where she taught mathematics to pre-flight cadets. During the 1930s and 1940s Calkins consistently attended meetings of the Allegheny Section of the MAA. After having been on leave the year 1956-57, Calkins retired as professor emeritus in 1957, two years after the school changed its name to Chatham College (now University).

Calkins was a member of Delta Delta Delta social sorority; Pi Lambda Theta, an education honor and professional association; the College Club of Pittsburgh; and the Daughters of the American Revolution. After her retirement, she moved back to Quincy, Illinois, where she was a member of the Quincy country club and the First United Presbyterian Church.

Helen Calkins died at age seventy-six in 1970 of arteriosclerotic heart disease at the Good Samaritan Home in Quincy, Illinois, where she had resided for about four years. She was survived by her sister and was entombed in the Woodland Mausoleum in Quincy.

Organizational affiliations: AMS, MAA, Sigma Delta Epsilon, AAUP, Pi Mu Epsilon.

Thesis and dissertation:

1921 The unity in mathematics, as illustrated by a certain differential equation. Master's thesis, Columbia University.

1931 Some implicit functional theorems. PhD dissertation, Cornell University, directed by Charles Frederick Roos (at AAAS from 1930) and David Clinton Gillespie (from 1931). Typescript. PhD granted 1932. Abstract: Ithaca, NY, 1932.

Abstract:

1935 Some implicit functional theorems. *Amer. Math. Monthly* 42:591 #4. Presented to the MAA, Bethany, WV, 4 May 1935.

References to: AmMSc 6–8, 9P–11P.

“Miss Helen Calkins.” (Obituary) *Quincy Herald Whig*, 18 Jun 1970.

Other sources: PhD dissertation vita 1931; Owens questionnaire 1940; Columbia University Rare Book and Manuscript Collection; Division of Rare and Manuscript Collections, Cornell University Library; communications with Chatham College Library, Knox College Archives, Quincy Public Library, and Sweet Briar College Archives; US Census 1900, 1910, 1920, 1930 IL; Illinois death certificate; SSDI.

Last modified: July 19, 2009.