ALLEN, Florence E. October 4, 1876–December 31, 1960.
University of Wisconsin (BL 1900, ML 1901, PhD 1907).

Florence Eliza Allen was born in Horicon, Wisconsin, the second child and only daughter of Eliza (North) (b. 1848), of Wisconsin, and Charles Allen (b. ca. 1836), a native of New York. Her parents married in 1866. Her father was a lawyer, who, it appears, died in 1890. In 1900, she, her mother, and her brother, Charles Elmer Allen (1872–1954), were living in Madison, Wisconsin.

Florence Allen was a mathematics major as an undergraduate in the College of Letters and Science at the University of Wisconsin. She was active in Castalia, a literary society for women promoting interest in the fine arts, and served as secretary and president. She was on the executive board of the self government association, was on the yearbook board, and was a member of Delta Delta Delta social sorority. Florence Allen received her bachelor's degree in 1900, a year after her older brother, who had taught and worked as a court reporter before studying at Wisconsin. They shared the same address, presumably with their mother, from the fall of 1896 until 1902. Charles E. Allen received his PhD in botany in 1904 from the University of Wisconsin and was on the faculty there from 1901 to 1943, when he retired as professor emeritus. He had attained the rank of professor in 1909. During his distinguished career he published extensively, was editor-in-chief of *The American Journal of Botany*, was president of his professional associations, received an honorary doctorate from the University of Chicago, and was elected to the National Academy of Sciences.

Florence Allen stayed at Wisconsin as a resident graduate in mathematics and philosophy 1900–01 and received her master's degree in mathematics in 1901. She was an assistant in mathematics at Wisconsin in 1901–02 and then became an instructor of mathematics. She remained at that rank for forty-three years, even though she had obtained her doctorate with a dissertation in geometry in 1907 and published her dissertation in 1914 and two additional research articles in 1915 and 1927. She became an assistant professor in the fall of 1945, shortly before her sixty-ninth birthday. Her promotion came two years before she retired at the rank of assistant professor emeritus. During her years at Wisconsin, in addition to her regular teaching and committee responsibilities, she sometimes taught summer courses, and she was active in planning and reporting on reunions for her class of 1900 in the Wisconsin alumni magazine.

As part of her entry in the 1914 *Woman's Who's Who of America*, Allen indicated that she favored women's suffrage. In response to an inquiry by Helen Owens concerning the outlook for women doctorates in mathematics, Allen wrote on June 8, 1940:

> Of course there will always be some women who should go in for a Ph.D. – some because it will be an actual necessity to qualify them for one of the occasional – very occasional – openings in college and university positions, some because of the leisure they may have to follow a congenial pursuit. But on the whole I see no great encouragement to be had from past experiences and observation. I do not believe that there is or will be a great future for any but a few in this field. At present, it seems to me, as I look about this campus, that in all strictly academic fields (not those special to women) that

> there is a decided drop in the number of women engaged. That may be peculiar to this economic phase, but I look for it to continue for some time to come.

Florence E. Allen was a member of the Wisconsin Academy of Sciences, Arts and Letters and of the Congregational Church. She had lived at the same house on Lathrop Street in Madison for more than fifty years before her death at eighty-four in a Madison, Wisconsin, hospital in 1960. She was survived by a niece and two nephews and was buried in Oak Hill Cemetery in Horicon, Wisconsin.

Organizational affiliations: AMS, MAA, Phi Beta Kappa.

Thesis and dissertation:
1901 The Abelian integrals of the first kind upon the Riemann's surface $s = (z-a)^{\frac{5}{6}}(z-b)^{\frac{5}{6}}(z-c)^{\frac{2}{6}}$. ML thesis, University of Wisconsin, directed by Linnaeus Wayland Dowling.
1907 On the determination of cyclic involutions of order three. PhD dissertation, University of Wisconsin, directed by Linnaeus Wayland Dowling. Published version, 1914, reprinted from *Q. J. Pure Appl. Math.* 45:258–88.

Publications:
1914 The cyclic involutions of third order determined by nets of curves of deficiency 0, 1, and 2. *Q. J. Pure Appl. Math.* 45:258–88. Published version of PhD dissertation. Reviews: *JFM* 45.0817.03 (W. Fr. Meyer); *Rev. semestr. publ. math.* 23, pt. 1: 61–62 (W. van der Woude).
1915 A certain class of transcendental curves. *Rend. Circ. Mat. Palermo* 39:149–52. Reviews: *JFM* 45.0846.05 (H. Rademacher); *Rev. semestr. publ. math.* 24, pt. 1: 77 (J. de Vries).
1920 Review of *Commercial Algebra*, by G. Wentworth, D. E. Smith, and W. S. Schlauch. *Bull. Amer. Math. Soc.* 26:177–79.
1927 Closure of the tangential process on the rational plane cubic. *Amer. J. Math.* 49:456–61. Reviews: *JFM* 53.0622.03 (G. Haenzel); *Rev. semestr. publ. math.* 33, pt. 2: 5 (W. G. J. ten Pas).
1928 Unsigned obituary of L. W. Dowling in "Notes and News." *Amer. Math. Monthly* 35:448.

Abstract not listed above:
1919 On a class of sectrix curves. *Bull. Amer. Math. Soc.* 25:389 #4. Presented by title to a meeting of the AMS, Chicago, 28–29 Mar 1919.

References to: AmMSc 6–8, 9P; BioWMath; WomWWA.
"Florence Allen, Ex-U.W. Faculty Member, 84, Dies." *Wisconsin State Journal*, 1 Jan 1961.

Other sources: Owens questionnaire 1940; Owens Papers; University of Wisconsin Archives; NatCAB 42 (Allen, Charles Elmer); US Census 1880, 1900, 1910, 1920, 1930 WI.

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