HOWE, Anna M. October 24, 1883–August 8, 1976.
Wells College (BA 1908), Cornell University (MA 1911, PhD 1917).

Anna Mayme Howe was born in Jordan, New York, the second of two children of Eleanor Caldwell (Reed) (1855–1943) and Lewis B. Howe (1852–1928), natives of New York. At the time of the 1900 census the family lived in Auburn, in upper New York State; her parents had been married twenty-one years; and her father's occupation was listed as city missionary. A 1900 Auburn city directory lists Lewis B. Howe as superintendent of the Gospel Knowledge and Mission Union; a 1917 directory of Onondaga County lists him as a farmer in Jordan, New York. Her older brother, Raymond R. (1882–1953), graduated from Yale University in 1905.

Anna Mayme Howe graduated from the high school in Auburn, New York, in 1902, having taken the Latin-scientific course. When she entered nearby Wells College in 1904, shortly before she turned twenty-one, she was one of fifty-nine entering freshmen. The tuition was $100 per year, and the board, consisting of "furnished room, light, heat, and the washing of one dozen plain pieces weekly" was $300 (Wells College catalogue 1904–05). While Howe was at Wells, the mathematics professor was Anna Lavinia Van Benschoten, who received her doctorate from Cornell in 1908, having taken a leave of absence from Wells during Howe's junior year, 1906–07. Howe graduated in 1908, at age twenty-four, and taught mathematics the next two years.

Howe studied at Cornell 1910–11 and received her master's degree in 1911 with a major in mathematics and a minor in education. She then became head of the mathematics department at Fairmont Seminary, a school for girls in Washington, D.C., that is now closed. She indicated later that she was teaching both high school and college work while there. She remained at Fairmont until 1915, when she returned to Cornell with a graduate scholarship in order to work toward her doctorate. She wrote her dissertation with Virgil Snyder in algebraic geometry, had a minor in mathematical analysis, and took courses in physics. Her dissertation appeared in 1919 in the *American Journal of Mathematics* and was cited a number of times by a fellow Cornell student, Temple Rice Hollcroft, who was professor at Wells College 1918–54. Howe received her doctorate in September 1917 and returned to Fairmont to teach for an additional year.

It appears that the following year, 1918–19, Howe was overseer of technical shipments for W. R. Grace and Company in New York. In the fall of 1919, she became a teacher of mathematics at Dana Hall, Wellesley, a girls' preparatory school founded in 1881 to address the needs of early Wellesley College students requiring additional preparation. The following May, in response to a letter about an opening, Howe wrote to the dean of H. Sophie Newcomb College, Tulane University, in New Orleans, about a teaching position in the mathematics department there. Details of her subsequent hiring and employment at the college appear in letters cited below that are in the Tulane University Archives. In her letter of May 3, 1920, to Dr. Pierce Butler, Howe wrote that her "present salary began last October with $1400 plus all living expenses but this was increased for the last four months at the rate of $50/month. . . . Miss Cooke, the Principal of Dana Hall requests me to remain here but I much prefer college work in Mathematics." A letter of recommendation of May 17, 1920, from Gertrude E. Preston, the head of the mathematics department at Dana Hall, to Butler notes that Howe "has done excellent work in Dana Hall. . . .

You will find her an earnest young woman, of scholarly attainments and a winning personality. Her ideals, both as scholar and teacher, are high." Howe accepted the offer of an instructorship for $1500 with board and lodging in the college residence (folder: Howe, Anna M., Tulane University Archives).

Howe was on the faculty at Newcomb until 1930: as instructor 1920–21 and as assistant professor 1921–30. She attended the International Mathematical Congress in Toronto in 1924 and afterwards reported on bookstores at various women's colleges in the East, apparently a task she had been assigned by her college dean before Newcomb established its own bookstore. In 1925–26, Howe received an extra $300 stipend to serve as financial secretary in charge of bookkeeping and finances for a new Club Dormitory. The first year ended with financial success and satisfied students, but Howe was told she must make different arrangements for 1926–27. She was to receive room and board but no extra stipend because there were no extra duties. Howe was elected to the graduate school faculty in 1926 and planned to give a course in projective geometry, "exactly as it has been given by Miss Spencer" according to her dean's recommendation to the graduate dean. Mary Cass Spencer, MS, had been professor at Newcomb since the turn of the century.

In March 1927, Howe had to return home to New York State because of her father's illness. In a letter of June 24, 1928, Howe explained to the dean that she and her mother would be occupying two rooms and eating "in the cafeteria at faculty rates or elsewhere." In the same letter, Howe requested a raise for the following year. She closed by thanking the dean for "trying to make next year financially possible for mother and me."

On May 3, 1930, Howe submitted her resignation to the dean of Newcomb College. A letter of recommendation of February 18, 1931, from Dean Butler to Florence Lewis at Goucher notes, "I do not hesitate to tell you that the real reason for Miss Howe's leaving Newcomb was only her own dissatisfaction in that she was not considered suitable for promotion to the head of the department upon the retirement of Miss Spencer. It was felt that she did not have the necessary personal force, or the necessary health for such position. Miss Howe, quite naturally, was disappointed, and resigned her position. We should have continued her in the position she had been filling satisfactorily." When Howe left in 1930, she was replaced by Marie Weiss.

In 1930, Howe and her widowed mother moved back to Jordan, New York, and Howe sought employment in the area. While her work history at this time is somewhat unclear, it appears that Howe found a position about forty miles away at the new Cazenovia Central School in the early 1930s. She indicated in 1937 that she was head of the department at Cazenovia Central School and that she had been supervisor of mathematics in Cazenovia, New York, since 1930. Elsewhere, she reported that she was head of the department in schools in New York from 1931 to 1948. In May 1942, the former Cazenovia Seminary closed, and the school became Cazenovia Junior College. At that time, Howe became professor and head of the department at the college (now Cazenovia College). She remained there until 1957.

Howe was involved in a number of professional and non-professional activities. She became a charter member of the MAA at the time of its founding in 1915, the year she returned to graduate school to complete her doctoral studies. Throughout her career she attended many national and sectional meetings; the last was a national summer meeting held at Cornell in 1965 celebrating the fiftieth anniversary

of the founding of the MAA. In 1928 she was treasurer for the New Orleans Convention of the AAUW, which met at a local hotel April 9–12. In the late 1930s, she reported that she was president of the local county mathematics club, and that she was organizing a three-year course in mathematics (subvocational) for non-college entrance students. At that time she was also a member of a literary society, and she described her interests as traveling, music, and gardening. In the mid-1950s, she reported her professional interests as teaching methods and educational statistics, and noted that she had been a member of the National Education Association.

According to her obituary, Howe was founder and former president of the Madison County Mathematics Association. She was a member of the New York Mathematics Teachers Association; the American Association of Junior Colleges; Zeta Tau Alpha, a national social sorority; Phi Theta Kappa, an honorary fraternity for men and women in two year college education; Daughters of the American Revolution; the League of Women Voters; and the New York State Citizens Council.

Howe moved back to Jordan after her years at Cazenovia. After her return she was a member of the Jordan Study Club, the Jordan Historical Society, and the Jordan Community Council as well as the First Church of Christ, Scientist, of Syracuse. Anna Howe died in 1976 at age ninety-two in a nursing home in Auburn, New York, and was survived by two nephews and a niece. She is buried in Maple Grove Cemetery of nearby Jordan, along with her parents, brother, and sister-in-law. The Howe Mathematics Award at Cazenovia College is given to a student with the highest average who has also demonstrated originality and deep interest in mathematics.

Organizational affiliations: AMS, MAA (charter member), NCTM, NEA, AAUW, Sigma Xi.

Thesis and dissertation:
1911 Problems in photogrammetry. MA thesis, Cornell University, directed by Joseph Vance McKelvey. Typescript.
1917 The classification of plane involutions of order three. PhD dissertation, Cornell University, directed by Virgil Snyder. Typescript. Published version, 1919, reprinted from *Amer. J. Math.* 41:25–48.

Publication:
1919 The classification of plane involutions of order 3. *Amer. J. Math.* 41:25–48. Published version of PhD dissertation. Reviews: *JFM* 47.0570.02 (W. Fr. Meyer); *Rev. semestr. publ. math.* 27, pt. 2: 2 (E. B. Cowley).

Presentation:
Some problems in projective geometry. Presented to a meeting of the MAA, Jackson, MS, 20–21 Mar 1925.

References to: AmMSc 3–4, 9P.
"Dr. Anna Howe; Retired Professor." (Obituary) *Syracuse Herald-Journal*, 9 Aug 1976.

Other sources: Owens questionnaires 1937, 1940; Center for Research Libraries College Catalog Collection; Rare and Manuscript Collections, Cornell University Library; New York State Archives; Tulane University Archives; communication with Frederic and Jean Williams Archives, Cazenovia College; US Census 1900, 1910, 1920 NY, 1930 LA.

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