BALLARD, Ruth (Mason). April 24, 1906–June 7, 1980.
Wellesley College (BA 1926), University of Chicago (MS 1928, PhD 1932).

Ruth Glidden Mason was born in Chicago, Illinois, the younger of two children of Bertha Hall (Sickles) (1866–1937) and Fred Bonfoy Mason (1870–1932). Her mother was in one of the earliest classes, possibly the first, at Michael Reese Hospital School of Nursing in Chicago. Her father was an 1890 graduate of Oberlin College and became an insurance agent in Chicago. They married in 1902, and their son, Ira Jenckes, was born in 1904. He attended Yale University and the University of Michigan and died in 1992.

Ruth Mason attended the Knickerbocker grammar school and Robert Waller High School, both public schools in Chicago. After her high school graduation at age sixteen, she studied one year at the University of Chicago before completing her undergraduate work in 1926 after three years at Wellesley College.

Mason immediately entered the University of Chicago where, after graduate study during the academic year 1926–27 and the spring and summer quarters of 1928, she received her master's degree in 1928. She wrote her thesis under the direction of Mayme Irwin Logsdon. During 1930–31 she was both a Horton-Hallowell fellow (from Wellesley) and a graduate fellow at Chicago. She studied one semester with D. N. Lehmer at the University of California in 1930 before finishing the work for her PhD at Chicago in 1932.

When Mason joined the MAA in 1932 she indicated that she was doing private research in Berkeley. She remained in the area doing some postdoctoral work at the University of California, Berkeley, in the years 1932–34 and taught at the College of the Holy Names (now Holy Names University) in Oakland, California, in 1933. During this period she gave her first talks on women in mathematics: in June 1933 to the Junior Mathematics Club at the University of Chicago and in November 1934 to Pi Mu Epsilon at the University of California, Berkeley. In a letter to Helen Owens of August 11, 1937, Mason wrote that "a few years ago while preparing a paper on Women in Mathematics, I realized that the really interesting part of their history is that of the progress of recent decades. Before that time a trained aptitude in mathematics was enough to make a woman a conspicuous and historical freak. Now even our maiden aunts merely think that mathematics is a somewhat odd field for a woman to work in" (Owens Papers).

Ruth Mason returned to the East and taught at Wellesley in the spring semester of 1935. Then she was an instructor at Hood College in Frederick, Maryland, 1935–36 before moving back to Illinois where, except for travel, she remained. She taught at the University of Illinois in Urbana 1936–38, as assistant the first year and instructor the second. She made a trip to Europe in summer 1938 and joined the faculty at Wright Junior College in Chicago that fall; she remained at Wright for five years. She was chairman of the mathematics section of the Illinois Association of Junior Colleges 1939–40. That same year she served as secretary-treasurer of the Chicago Mathematical Model Club and demonstrated materials for freshman mathematics that had been made under the auspices of the WPA.

On April 20, 1940, Ruth Mason married Foster K. Ballard (1899–1978), a graduate of the University of Chicago, chemist for the US Customs Service, and a long-time friend of her brother. At about this time Ruth Mason Ballard was appointed to the newly formed MAA Committee on Section Meetings; she remained on the

committee until 1947. She remained at Wright only until 1943, when circumstances required a change. Her holiday letter of 1943 describes the situation.

> Until last June there were no radical changes in our way of life.... Enrollment was falling off at Wright – Boys were leaving for the armed forces, and girls for jobs. There had once been seven faculty members in our department; by last June there were five. Then on the morning of the first day of final examinations came the order that because the Navy was taking over the building, the Wright Junior College faculty were to be out by five-thirty that evening.... The students took final examinations while the rooms were being dismantled around their heads. We finished the semester at Herzl, ... a Junior College on the west side of Chicago. (letter provided to author by Fred E. Ballard)

Wright College was saved, although the enrollment dropped from about three thousand a few years earlier to about six hundred. Ballard was on leave of absence, but was teaching again in July 1943, this time in a Navy V-12 program for sailors, housed at the Illinois Institute of Technology in Chicago. She continued teaching in this program until 1945.

The Ballards' son, Fred Everett, was born on May 26, 1946. For the next few years Ruth Ballard's activities focused on playground groups, Cub Scouts, and PTA, while she continued to teach Sunday school in the Episcopal church and serve as a choir mother and member of the vestry. Throughout her life she enjoyed travel in the United States and cultural activities in Chicago: theater, museums, and opera. She was interested in mathematical puzzles and had some original ones published. She also maintained her involvement with the Women's Mathematics Club of Chicago and Vicinity.

From 1955 until her retirement in 1972, Ballard taught full time as assistant professor and then associate professor at the University of Illinois at Navy Pier (moved and renamed the University of Illinois at Chicago Circle in 1965, now the University of Illinois at Chicago). During this period she was program director in 1962–63 and president in 1963–64 of the Women's Mathematics Club. She also produced notes for an elementary college geometry course that were copyrighted in 1971.

Ruth Ballard died at seventy-four in 1980 at Rush-Presbyterian-St. Luke's Hospital in Chicago. The funeral was held in St. Augustine's Episcopal Church in Wilmette. She was survived by her son, two grandchildren, and her brother.

Organizational affiliations: AMS, MAA, NCTM, AAAS, Sigma Delta Epsilon AAUW, Sigma Xi, Pi Mu Epsilon.

Thesis and dissertation:
1928 [Mason, R. G.] Properties of the polars and normals of pencils of plane curves. MS thesis, University of Chicago, directed by Mayme Irwin Logsdon. Typescript.
1932 [Mason, R. G.] Studies in the Waring problem. PhD dissertation, University of Chicago, directed by Leonard Eugene Dickson. Private edition, 1934, distributed by the University of Chicago Libraries.

Publications:
1941a Construction of objective tests in mathematics. *Natl. Math. Mag.* 16:150–56.
1941b Teaching of mathematics at the junior college level. *Sch. Sci. Math.* 41:482–86.
1943 Review of *Mathematical Recreations*, by M. Kraitchik. *Natl. Math. Mag.* 17:328.

1944a Notes from a freshman class room. *Natl. Math. Mag.* 19:91–92.

1944b Review of *Basic Geometry*, by G. D. Birkhoff and R. Beatley. *Natl. Math. Mag.* 19:52.

Abstracts not listed above:

1934 [Mason, R. G.] Further properties of ternary continued fractions. *Bull. Amer. Math. Soc.* 40:389 #206. Presented to the AMS, Berkeley, CA, 20 Jun 1934.

1939 [Mason, R. G.] Some dissection problems. *Amer. Math. Monthly* 45:402 #2. Presented to a meeting of the MAA, Carbondale, IL, 13–14 May 1938.

1940 Recreations connected with square arrays. *Amer. Math. Monthly* 47:598 #1. Presented to a meeting of the MAA, Bloomington, IL, 10–11 May 1940.

Presentations not listed above:

Mathematics and humor. Presented to the NCTM, Chicago, 22 Feb 1968.

Humor in mathematics. Presented to the NCTM, Cedar Rapids, IA, 23 Aug 1968.

References to: AmMSc 6–7, 10P–11P; AmMWSc 12P.

Obituary. *Winnetka Talk*, 12 Jun 1980.

Other sources: PhD dissertation vita 1934; Owens questionnaires 1937, 1940; Owens Papers; Wellesley College Alumnae Office; conversations with Fred E. Ballard; US Census 1910, 1930 IL.

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