BEATY, Marjorie (Heckel). January 21, 1906–July 18, 2002.

University of Rochester (BA 1928, MA 1929), University of Colorado (PhD 1939).

Marjorie Louise Heckel was born in Buffalo, New York, the daughter of Josephine Mary (Fisher) (1874–1949) and Henry George Heckel (1875–1943), both natives of New York State. Her father was manager of a furniture store. A brother, George Philip, was three years younger than she, became a physician in Rochester, and died in 1963.

Marjorie Heckel attended grade school and a year of high school in Buffalo. Her family then moved to Rochester, New York, where she graduated from East High School. She attended the University of Rochester on a state scholarship and received her bachelor's degree with a major in mathematics in 1928. She remained for a year after her graduation to complete her master's degree. Heckel then went to Brown University to continue her graduate studies. She was an assistant there for two years, 1929–31, but had to leave for financial reasons.

Heckel took a position as instructor at the University of South Dakota in the fall of 1931. "She came by train from New York and arrived at a university quite different from the way it is today. For one thing, she and ... Harry Lane were the only instructors the mathematical sciences department had. Also, it was a year of drought in South Dakota when [she] arrived so the campus was very dry and dusty with only a few buildings compared to how many there are today" (Krebs, "A century and a half of dedication," 2). In her second year there she met Donald W. Beaty (1903–1979), a cattle feeder and farmer who was teaching some courses at the university. They married on March 30, 1933, and according to Krebs, "her marriage forced [her] to resign her position at the university because during the depression only one member of a household was allowed to hold a job" (p. 2). Krebs reported that the university needed another mathematics instructor during the year 1934–35, and Beaty volunteered to teach one course for a semester without pay.

Marjorie Beaty studied at the University of Colorado during 1935–38. It appears that she was a university fellow and teaching assistant her first year, a research fellow her second year, and a teaching assistant her third year. Her dissertation, one of four directed by Aubrey Kempner at Colorado, resulted in a PhD in 1939. The only other Colorado doctorate in mathematics earned by a woman before 1960 went to Laura Louise Johnson (Rosenbaum), Kempner's other 1939 PhD student. Beaty and Johnson earned the third and fourth PhD's given in mathematics at Colorado.

Beaty returned to the mathematics department at the University of South Dakota as acting head in 1938–39; she was assistant professor 1938–41 and was acting dean of women for one semester in 1941. Shortly thereafter she took an extended leave to raise her two daughters, Debra, born in 1943, and Mary, born in 1944. Beaty returned to the department as assistant professor in 1955, was promoted to associate professor in 1958, and to professor in 1961. She retired in  $1976_7$  but taught at nearby Yankton College for a number of years after her retirement.

In 1965 Beaty delivered the thirteenth annual lecture on liberal education, "Progress and the Professor," to the College of Arts and Sciences at the University of South Dakota. She was a recipient of an Outstanding Educator of America award in 1974.

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She spoke at the 1982 summer commencement at the University of South Dakota; in conjunction with the commencement, her daughters donated funds to the university to set up the Dr. Marjorie H. Beaty Mathematics Scholarship to be given to a mathematics major each year, with preference given to residents of South Dakota. The university's Phi Beta Kappa chapter also gives the Marjorie H. Beaty award to a senior who plans to pursue graduate work there. After her retirement, Beaty continued her contributions to the university. She served on the board of directors of the university's America's Shrine to Music Museum, helped to create the Emeritus Club Shakespeare Garden, and was chair of the university's Centennial of South Dakota. She and her late husband were awarded the University of South Dakota Foundation's Inman Award in 1998 in recognition of their contributions to the university.

In about 1940 Beaty reported that she was Congregationalist and a Republican and that her favorite recreation was hunting. Her husband served as a Republican state senator from 1943 through 1948, and from 1950 to 1976 she served as the secretary to the Clay County Republican Central Committee. She was a founding member of the Eta chapter of South Dakota of Delta Kappa Gamma, a professional honor society for women educators, and received that society's state achievement award in 1985. She held memberships in the South Dakota Academy of Science, Alpha Lambda Delta, Omicron Delta Kappa, Mortar Board, Order of the Eastern Star, and the social sorority Chi Omega. She also belonged to P.E.O. (philanthropic educational organization) Sisterhood, a society promoting educational opportunities for women, and served as president of the local Vermillion chapter; she remained a member more than fifty years. She joined the AMS in 1929 as a nominee of Brown University and maintained her membership until her death.

Marjorie Beaty died at the Sioux Valley Vermillion Care Center in Vermillion, South Dakota, in 2002 at age ninety-six. A service was held at the United Church of Christ (Congregational), and she was buried in the Bluff View Cemetery in Vermillion. Beaty was survived by her two daughters, six grandchildren, a nephew, and two nieces.

**Organizational affiliations:** AMS, Sigma Delta Epsilon, AAUW, Phi Beta Kappa, Sigma Xi, Pi Mu Epsilon.

## Thesis and dissertation:

1929 [Heckel, M.] Tetracyclical coordinates. MA thesis, University of Rochester.

1939 On the complex roots of algebraic equations. PhD dissertation, University of Colorado, directed by Aubrey Kempner. Typescript.

## **Publications:**

1958 with J. A. Martin. Space dualization of a system involving three mutually perspective triangles. *Proc. South Dakota Acad. Sci.* 37:131–34.

1959 with D. L. Henderson. Study based on the trilinear coordinate system. *Proc. South Dakota Acad. Sci.* 38:198–202.

1965 Progress and the Professor. Vermillion, SD: College of Arts and Sciences, University of South Dakota. Annual Lecture on Liberal Education presented 24 Feb 1965.

## Abstract not listed above: :

1937 Remarks on the calculation of  $\pi$ . Amer. Math. Monthly 44:415 #12. Presented to a meeting of the MAA, Greeley, CO, 16–17 Apr 1937.

**References to:** AmMSc 7, 9P–11P; AmMWSc 12P–13P, 14; AmWom 1935–40; Out-EdAm 1974; WhoAmW 8, 10–11; WhoMW 16–17.

"Dr. Marjorie Beaty." (Obituary) Vermillion (SD) Plain Talk, 25 Jul 2002.

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"Dr. Marjorie Beaty." (Obituary) Rapid City (SD) Journal, 19 Jul 2002.

**Other sources:** Jones and Thron, A History of the Mathematics Departments of the University of Colorado; Sally Krebs, "A century and a half of dedication," April 1987 (typescript); US Census 1910, 1920, 1930 NY, 1930 SD.

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