QUINN, Grace (Shover). December 20, 1906–February 4, 1998. Ohio State University (BA 1926, BS 1926, MA 1927, PhD 1931).

Carolyn Grace Shover was the second of two daughters of Margaret Seeds (1859–1944) and Cyrus F. Shover (1857–1939), both natives of Ohio. She was born in Grove City, Ohio, just outside Columbus. Her parents attended rural schools and married in about 1892. Her mother, later described by Quinn as a homemaker who was an expert seamstress, held a teacher's certificate, while her father was a carpenter and was in the lumber business. Her older sister, (Rebekah) Ruth Shover (1894–1975), was also born in Grove City. Ruth Shover later earned a bachelor's degree in education from Ohio State University and a master's degree from what is now Case Western Reserve University, and was a high school teacher. The family was living in Columbus, Ohio, by 1900.

Grace Shover attended public schools in Columbus from 1912 to 1922, when she entered Ohio State University at age sixteen as a commuter. She graduated in 1926, having earned a BA with honors and a BS in education. She was a member of Pi Lambda Theta, an education honorary association. Shover remained at Ohio State and earned a master's degree in 1927, after having served as an assistant in psychology during 1926–27. Her master's thesis was on scoring methods in college reading tests. She continued her work at Ohio State with a University scholarship in mathematics 1927–29; she also studied at the University of Chicago during the summer of 1928.

Shover taught mathematics for the next four years while also completing her graduate work in mathematics. She was an instructor at Connecticut College for Women 1929–33. During this period, in 1931, she received a PhD in mathematics from Ohio State University, with a dissertation in the area of number theory in the context of a linear associative algebra, written under the direction of C. C. MacDuffee. During 1933–34 she worked at the Federal Reserve Bank in Cleveland, Ohio.

In the fall of 1934 Grace Shover was one of four women who was at Bryn Mawr College on a scholarship or fellowship to study with Emmy Noether, who had come to Bryn Mawr from Germany the previous fall. The others were Marie Weiss (PhD 1928 Stanford), Olga Taussky (PhD 1930 University of Vienna), and Ruth Stauffer (McKee), who was a doctoral student at Bryn Mawr and who would receive her degree the following June. Shover had an Emmy Noether fellowship, which paid for her room, board, and tuition. Her account of some events of the year at Bryn Mawr and especially of the sudden death of Noether in April 1935 was presented at a 1982 AWM symposium on Noether and published as 1983. During the next year, 1935–36, Shover was a teacher at the Shipley School in Bryn Mawr, a position she had taken the previous winter with the intention of continuing her studies with Noether. She said in 1982, "Unfortunately, my plans were shattered by her untimely death" (1983, 140).

In the summer of 1936 Shover attended the International Mathematical Congress in Oslo. Before the Congress she traveled to Göttingen and attended lectures by Helmut Hasse. She left Göttingen early to assist Anna Pell Wheeler, who was in a wheelchair after having fallen in Hamburg, in her travels from Copenhagen to Oslo. Shover had planned to travel after the Congress with a group led by Mayme

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Logsdon. However, the group left before the Congress ended, and Shover joined them a day late in order to hear a talk by Olga Taussky.

Shover was an instructor at the New York College for Teachers (now State University of New York at Albany) for the year 1936–37 and then at Carleton College in Minnesota for five years, 1937–42. In June 1940 she wrote to Helen Owens that teaching "does not leave much time for original work. I have 3 papers in the fire and wish to finish them this summer" (Owens Papers). It appears that one of these papers was published the following year.

On June 9, 1942, in Cleveland, Ohio, Grace Shover married Robert Byron Quinn, who had been an instructor of physics at Carleton the previous three years. Robert Quinn, born on February 6, 1907, in Valparaiso, Indiana, received his bachelor's degree and master's degree from Indiana University in 1929 and 1930, respectively, and his doctorate in physics from the University of Chicago in 1941. After their marriage the Quinns moved to Washington, D.C., where from 1942 to 1945 Robert Quinn was a staff member and project engineer for the US Naval Research Laboratory. In 1942 Grace Quinn was a cryptanalyst for the US Navy, and from 1943 to 1945 she was a research assistant for the National Defense Research Committee. From 1942 to 1944 she was also a part-time lecturer at George Washington University.

Robert Quinn continued his professional work with the US Naval Research Laboratory as unit head 1945-48 while also an instructor at the University of Maryland 1945-46. He then worked in the navy's Bureau of Ordnance, Bureau of Naval Weapons, and the Naval Air Systems Command before his retirement in 1970. He was a staff member and mathematician in evaluation and analysis with the Bureau of Ordnance 1948-60, was group head in Weapons System Analysis with the Bureau of Naval Weapons 1960-66, and was branch head of the Naval Air Systems Command 1966-70.

The Quinns had two daughters, both born in Washington, D.C.: Margaret Edith in May 1946, and Carolyn Roberta in August 1949. Margaret Quinn later earned a bachelor's degree in mathematics and computer science from Iowa State University and a master's degree in computer science from Rutgers University; in 1981 she had completed the course work for her PhD and was working as a computer scientist for Bell Telephone Laboratories in Highland Park, New Jersey. Carolyn Roberta Quinn earned a bachelor's degree in English Literature from Ripon College and a certificate from the Morven Park International Equestrian Institute in Leesburg, Virginia, and was working as an equestrian in 1981.

Grace Quinn interrupted her career for just over a decade while the children were young before resuming full-time teaching in 1956 at American University in Washington, D.C. She spent the next fourteen years there, first as assistant professor, then as associate professor, and finally as professor from 1963 until her retirement in 1970. She continued as an adjunct professor for a year after her retirement. Her teaching at American University included the complete range of undergraduate courses as well as modern algebra and matrix theory at the graduate level. Quinn also directed several master's theses while at American University. She was a member of Phi Kappa Phi, an honor society for scholarship when she was at American.

In her 1981 Smithsonian questionnaire, Quinn described her religious affiliation as Congregational since 1928. She described one of her hobbies as playing the piano

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and noted that she took piano and belonged to a group with similar interests. She was also interested in needlework, sewing (had done tailoring including a winter coat), and some gardening. At that time she was treasurer of the American University Women's Association; was secretary of the Women's Guild at her church, the Westmoreland Congregational Church in Bethesda; was on the executive board of the Bethesda Garden Club; and was vice president of a social club. She also noted that earlier she had been a Republican, later a Democrat, and most recently a registered Republican. Other activities mentioned later were membership in the Appalachian Trail Club and volunteer work for Meals on Wheels.

In July 1991 the Quinns moved to Foxdale Village, a Quaker retirement community in State College, Pennsylvania. There they belonged to the Faith United Church. Less than two years later, on March 21, 1993, Robert B. Quinn was in an automobile accident; after nearly seven months in a coma he died on October 3. According to the Washington Post obituary, he had been a passenger in a car that was hit broadside when another car ran a stop sign. In February 1998 Grace Quinn died at ninety-one of a heart ailment in Foxdale Village in State College, Pennsylvania. She was survived by their two daughters and a grandchild. Inurnment was at Graceland Cemetery in Valparaiso, Indiana, where her husband was buried.

Organizational affiliations: AMS, MAA, AWM, AAUW, Phi Beta Kappa, Sigma Xi, Pi Mu Epsilon.

Thesis and dissertation:

1927 [Shover, G.] Differential scoring methods in college reading tests. MA thesis, Ohio State University.

1931 [Shover, G.] On the class number and ideal multiplication in a rational linear associative algebra. PhD dissertation, Ohio State University, directed by Cyrus Colton MacDuffee. Typescript. Abstract: Abstracts of doctors' dissertations. The Graduate School, Ohio State University. 8:142–47. See also 1933.

Publications:

1931 [Shover, G.] with C. C. MacDuffee. Ideal multiplication in a linear algebra. *Bull. Amer. Math. Soc.* 37:434–38. Presented to the AMS, Cleveland, OH, 30 Dec 1930; abstract: *Bull. Amer. Math. Soc.* 36:806 #424. Reviews: *JFM* 57.0164.02 (W. Specht); *Zbl* 002.01101 (G. Köthe).

1933 [Shover, G.] Class number in a linear associative algebra. *Bull. Amer. Math. Soc.* 39:610–14. Published version of PhD dissertation. Presented to the AMS, Columbus, OH, 28 Nov 1931; abstract: *Bull. Amer. Math. Soc.* 37:829 #388. Reviews: *JFM* 59.0165.01 (A. Scholz); *Zbl* 007.39503 (C. C. MacDuffee).

1941 [Shover, G.] On roots of unity. *Natl. Math. Mag.* 15:232–33.

1983 with R. S. McKee, M. Lehr, and O. Taussky. Emmy Noether in Bryn Mawr. In *Emmy Noether in Bryn Mawr*, ed. B. Srinivasan and J. Sally, 139–146. New York: Springer-Verlag. Presented as part of "Emmy Noether at Erlangen, Göttingen, and Bryn Mawr," panel discussion at AWM Symposium in Honor of Emmy Noether's 100th Birthday, Bryn Mawr, PA, 18 Mar 1982. Review: *Zbl* 557.01012 (I. Schneider).

Abstracts not listed above:

1936 [Shover, G.] Number theory in a hypercomplex system. *Bull. Amer. Math. Soc.* 42:336. Presented to a meeting of the AMS, New York City, April 10–11.

1938 [Shover, G.] Operator isomorphism and equivalence of ideals. *Amer. Math. Monthly* 45:564 #3. Presented to the MAA, Collegeville, MN, May 14, 1938.

1939 [Shover, G.] On roots of unity. *Amer. Math. Monthly* 46:534~#8. Presented to the MAA, Northfield, MN, May 13, 1939, Carleton College.

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

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"Obituary: Grace Shover Quinn." State College Centre Daily Times, 6 Feb 1998. "Grace Shover Quinn, Mathematics Professor." Washington Post, 9 Feb 1998.

Other sources: PhD dissertation vita 1931; Owens questionnaires 1937, 1940; Smithsonian questionnaire 1981; Smithsonian meeting tapes 1981; Owens Papers; correspondence with author; conversations with authors; communication with Carleton College Archives; "Robert Byron Quinn," (Obituary) Washington Post, 6 Oct 1993; US Census 1900, 1910, 1920, 1930 OH; SSDI.

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