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Janet Heine Barnett* (janet.barnett@csupueblo.edu). *Prime Sources: A Classroom-tested Student Project Approach to Learning Today's Number Theory through the Works of its Historical Masters.*

Number theory has deep historical roots dating back to problems first studied in ancient Greece. The subject began to take its modern form in the hands of Euler. There followed a time of extraordinary change, with nineteenth century number theorists generalizing the seemingly simple concepts of 'integer' and 'prime' as the discipline became more abstract, more formal and more rigorous. This talk describes an approach to learning today's number theory by drawing on this rich and exciting history.

We illustrate this approach with details of a Primary Source Project (PSP) based on Dedekind's 1877 "Theory of Algebraic Integers." A key feature of this text is its careful formulation of a new conceptual framework for studying problems previously treated algorithmically. Through guided reading of select excerpts, students encounter Dedekind's methodology and original motivations, and develop their own understanding of underlying concepts by completing tasks interspersed between the excerpts. Overviews of other number theory PSPs and of the inquiry-based pedagogy guiding the NSF-funded project *Transforming Undergraduate Mathematics via Primary Historical Sources* that is supporting the development of PSPs for topics throughout the undergraduate curriculum will also be shared. (Received September 26, 2017)