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Cathy L Seeley* (cseeley@austin.utexas.edu), 1616 Guadalupe, UTA, Ste. 3.206, Austin, TX 78731. *Preparing twelfth-graders for college mathematics.*

The Common Core State Standards give us a renewed opportunity to rethink high school mathematics. With more students expected to complete four years of academic high school mathematics, we have a responsibility to prepare them all to continue their mathematical studies. What opportunities and challenges does this changing mathematical preparation offer to higher education? We will look at the mathematical content that can be addressed at the twelfth-grade, or fourth-year level, including some topics not typically addressed. And we will discuss new pedagogical approaches that prepare students not only with mathematical knowledge, but also with the critical thinking and independent learning skills that will help them succeed in college. A recently developed fourth-year mathematics course will be shared as an example of a new generation of capstone mathematics courses for high school students that can engage them in rigorous, yet accessible mathematical tasks. (Received September 20, 2011)