During the previous century, a handful of avant-garde playwrights took inspiration from the various revolutions in geometry, logic, and theories of the infinite to challenge the artistic norms of their respective eras. This unexpected synthesis of mathematics and theater eventually found its way to the mainstage with critical successes such as Arcadia (1993), Proof (2000), and A Disappearing Number (2007). For the last 15 years I have been team-teaching an interdisciplinary course that engages the mathematical ideas with the goal of understanding how they contribute to the mission of the artists. Likewise, the course engages the theater in an authentic way, regularly performing scenes in class and, on one occasion, mounting a small production. (Received September 26, 2017)