1035-01-1143   **J Christopher Tweddle*** (`ct55@evansville.edu`), University of Evansville, 1800 Lincoln AVE, Evansville, IN 47722. *Weierstrass's construction of the real numbers.*

Karl Weierstrass first put forth a formulation of the real numbers while lecturing on analytic functions in Berlin during 1863. While Weierstrass never formally published his approach, references to his construction can be found in works of his students and contemporaries. Like the approaches of Georg Cantor and Richard Dedekind, Weierstrass built his irrational numbers from collections of rational numbers. We shall present his definition of the irrational numbers and illustrate the equivalence to Cantor's construction, which uses Cauchy sequences of rational numbers. (Received September 18, 2007)