1041-01-25 Brenda Davison* (bdavison@sfu.ca), 563 Glenross Road, West Vancouver, B.C. V7S1L6, Canada. Impact of G.H. Hardy and a Course of Pure Mathematics.

In 1908, Godfrey Harold Hardy wrote "A Course of Pure Mathematics". This book is often credited with transforming British analysis; a fact which will be examined in this paper. I consider why Hardy wrote "A Course of Pure Mathematics" and how it was different from contemporary English language texts such as Goursat's "A Course in Mathematical Analysis" or Chrystal's "Algebra, an Elementary Textbook". I will show that Hardy provided a clear, rigorous introduction to the theory of logarithms and exponentials far superior to that of contemporary textbooks and provided what today would be a perfectly reasonable introduction to the theory. Hardy also provided a rigorous, constructivist definition of the real numbers that while not now seen in elementary texts, was present in contemporary books. However, Hardy's elegant prose made the material much more accessible than it had been previously. What most sharply divides Hardy's work from a modern text is a lack of set theory throughout his book; particularly evident in his definition of a function as a relationship between two continuous real variables. Finally Hardy's impact on mathematics instruction at Cambridge apart from "A Course of Pure Mathematics" is discussed, notably his role in the reforms of the Tripos examinations. (Received July 14, 2008)