

Carl Friederich Gauss was born in small cottage outside of Brunswick, Germany on April 30, 1777. He was born to poor and uneducated parents. Gauss's father was a gardener and bricklayer who did not see the importance of learning. His mother supported his learning. When Carl's uncle, Friederich noticed Carl teaching himself to read he brought him children's books in an effort to encourage his learning.

Carl first attended school at age seven. He was constantly reading even though his father scolded him for it and sent him to his room. His reading brought him good luck when one day the Duchess of Brunswick found Carl reading in her garden. After conversing with the Duchess she became interested in Carl and convinced her husband, the Duke of Brunswick to become Carl's benefactor.

At age sixteen Gauss thought of an alternative to Euclid's geometry, and put forth the astonishing and accurate idea that another, non-Euclidean geometry exists. By the age of eighteen Gauss had mastered the works of Lagrange and Newton.

Gauss attended the University of Gottingen. It was here at the university that Gauss found a method for constructing a regular polygon with seven sides. His crowing achievement was his doctoral thesis written at age twenty. In this thesis Gauss gave the first satisfactory proof of the fundamental theory of algebra, which deals with algebraic equations. In

1801 he published his first major work Disquisitiones Arithmeticae (Arithmetic Researches) which brought him instant fame. The material contained in his book is basic to modern number theory. Gauss considered this branch of mathematics to be of prime importance.

At age twenty-eight Carl was married. Soon after in 1807 he was named the director of the University of Göttingen. During his first year in this capacity Gauss lectured in a few math classes. However teaching never appealed to Gauss because he found the students mostly unprepared and not yet ready to comprehend his studies. Although Gauss set forth his theories in a clear, orderly fashion, many of his theories could not be understood by his colleagues. Gauss was puzzled by this fact. "If others would reflect on mathematical truths as deeply and as continuously as I have, they would make my discoveries," he remarked to a friend.

Gauss's interest in heavenly bodies, most notably Ceres and Pallas, led to his second book The Motion of the Planets in 1809. This book dealt with rotations of the planets and electromagnetism. In 1821 Gauss was appointed scientific advisor to a government geodetic survey.

Gauss's interests went beyond mathematics. He could read and write Latin, English, Danish, French, and Russian. His hobbies also included the study of European literature, ancient classics, world politics, botany, and mineralogy. Gauss invented the heliotrope which transmitted signals by reflected light. In 1833 Gauss also invented the electric telegraph which he used to often to send messages.

Gauss remained at Gottingen until his death in 1855, at the age of seventy-eight. His contribution to mathematics had been overwhelming.

The astronomer Brendel wrote this of Gauss:

His mind penetrated into the deepest secrets of

number, space, and nature;

He measured the course of the stars, the form and forces  
of the earth;

He carried within himself the evolution of mathematical  
sciences of a coming century.