



**Gottlob Frege (1848-1925)**

Gottlob Frege (FRA-guh) was a German mathematician and logician and one of the founders of modern logic. Frege was the first to employ the existential and universal quantifiers introduced in this chapter.

## **Chapter 1 Logic and Proofs**

Section 1.1 Sentential Logic

Section 1.2 Conditional and Biconditional Connectives

Section 1.3 Predicate Logic

Section 1.4 Mathematical Proofs

Section 1.5 Proofs in Predicate Logic

Section 1.6 Proof by Mathematical Induction



"Mathematics as an expression of the human mind reflects the active will, the contemplative reason, and the desire for aesthetic perfection. Its basic elements are logic and intuition, analysis and construction, generality and individuality."

... Richard Courant