

COMPUTABILITY

Before examining the intrinsic nature of computation we must have a precise idea of what computation means. Thus we shall begin with intuitive notions of terms such as *calculation*, *computing procedure*, and *algorithm*. After this we shall be able to develop a precise, formal characterization of computation. Models of computation shall be presented with emphasis upon their finite nature and their methods of transforming inputs into outputs. Finally, we shall compare our various models and examine their power.

The sections are entitled:

- The NICE Programming Language
- Turing Machines
- A Smaller Programming Language
- Equivalence of the Models
- Machine Enhancement
- The Theses of Church and Turing

- Historical Notes and References*
- Problems*