The theory of computation deals with the question *What can be computed?* To address this question, one needs a mathematical model of computation. The first and still most fundamental model was proposed by Alan Turing in 1936. It is now known as the *Turing machine*. With regards to discrete data, the Turing model has proven its worth many times over. Over the past two decades, there has been much development in the theory of computation with continuous data. This forms the basis for recent results on computational aspects of Blaschke products and inner functions. We will begin with a gentle introduction to the essentials of the theory of computation with respect to discrete and continuous data. We will then survey results on Blaschke products and inner functions.