

Our goal in this chapter is to investigate the capabilities of computers. We have seen many examples of Python functions in previous chapters, but here we begin with the more general concept of computing mathematical functions. A function in its mathematical sense is a correspondence between a collection of possible input values and a collection of output values so that each possible input is assigned a single output. Another example, which we could call the `sort()` function, assigns each input list of numeric values to an output list whose entries are the same as those in the input list but are arranged in the order of increasing value. The process of determining the particular output value that a function assigns to a given input is called computing the function.