Introduction

The Bourbaki Project is a collection of documents describing mathematical concepts, terminology, results and notation. Each document is named and labeled with the names of those documents that should be read before it by the unaquainted reader.

Our primary aim is to understand and develop the mathematical concepts ourselves. A natural (and old) endeavor. Besides this, we have two auxiliary aims. First, to provide writings to teach the concepts to an unaquainted reader. In other words, to provide useful exposition. And second, to serve as a reference for further work.

We call these documents *sheets*. They are only ever two-pages long, and sometimes shorter. They can be printed on the front and back of a single sheet of a paper, hence the name sheet. The decision to cap at two pages is arbitrary. But our experience suggests it is convenient.

We call the sheets that should be read before a particular sheet X the *needs* of X. For example, the sheet *Relations* needs the sheet *Ordered Pairs*. The reason, in this case, is that the concept of a relation is discussed using the concept of an ordered pair of objects. And since the phrase "ordered pair of objects" makes sense only if we know what is meant by object

(discussed in the sheet *Objects*), the sheet *Relations* needs the sheet *Objects* also. The reader unaquainted with ordered pairs and objects must read (at least) these two sheets before the sheet on relations.

To say more would be, in our estimation, worth less than the reader's time spent inspecting the sheets. So we will conclude. The project is supported by funds from the Department of Defense of the United States of America and Stanford University.