

3.1 Introduction

Since in many cases a given numerical problem can be reformulated in terms of finding zeros of a certain function, this latter task occurs frequently; it is of special importance as a basic strategy for handling numerical problems. Typically, an iterative approach is used to (approximately) determine the zeros. However, also other numerical methods involve iterative approaches; to reformulate numerical problems as iterative schemes is another basic strategy for handling them. Such iterative schemes rely on a fundamental mathematical property of certain functions (more general: operators); this is the subject of the first section of this chapter.