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The fundamental theorem of algebra.

Springer, New York, NY (ISBN 0-387-94657-8). 220 p. (1997).

The purpose of this book is to examine three pairs of proofs of the theorem from three different areas of mathematics: abstract algebra, complex analysis and topology. The first proof in each pair is fairly straight forward and depends mostly on elementary mathematics. To arrive at each of the proofs, the general theory is developed to understand the proof. In addition to the proofs, many applications, such as the insolvability of the quintic and the transcendence of e and π are presented. The book is intended for junior/senior level undergraduate mathematics students.

Classification: H10