in all, and at the beginning of each chapter a fine print paragraph sketches its contents. The author avoids referring in the text to results proved in previous exercises until the final chapter. The references at the end of the book, list numerous journal articles as well as books. The only difficulties the reviewer experienced were the author's occasional assumptions made at the beginning of a section, valid for the section, but which might be overlooked by one who simply looks up a theorem in the section. Very few typographical errors were found, of which the following may be worth mention:

p. 293, last line: the second of the three equality signs should read "$\leq$".

p. 429, line 6 down: "2ε" may be replaced by "ε".

p. 429, line 14 down: "ε" should be replaced by "2ε".

The reviewer recommends the book both as a lucid text and reference.

Norton Starr, Amherst College

Eléments de mathématique, by N. Bourbaki. Fasc. XXXII. Théories spectrales. Chapitre 1 : Algèbras normées. Chapitre 2 : Groupes localement compact commutatifs. Actualités Scientifiques et industrielles 1332, Hermann, Paris, 1967. 45 F.

This is a very concise and clear treatment of Banach algebras and Fourier Analysis on locally compact commutative groups. The Bourbaki exposition is clean and neat; only topics of major importance appear in the text, and these are given a detailed and elegant treatment. Many topics of interest are relegated to the exercises.

The first two sections of Chapter 1 are of a preliminary nature. Then the Gelfand Theory of commutative Banach algebras is presented. This is followed by an excellent section entitled "Calcul fonctionnel holomorphe" which is the study of morphisms of algebras of germs of analytic functions into a Banach algebra. The problem of harmonic synthesis in regular commutative Banach algebras is then discussed. A section on normed *-algebras including C*-algebras and the C*-algebra of a locally compact group follows. The chapter ends with a section on algebras of continuous functions on a compact space. There are close to 100 exercises at the end of the chapter.

Chapter 2 begins by developing the standard results of Fourier Analysis : Plancherel's theorem, the inversion formula, the Pontriagin duality theorem, etc. . The next section presents the structure theory of locally compact commutative groups. The final section is a discussion of harmonic synthesis in L^1, L^∞ and L^2. Some more recent results concerning harmonic synthesis appear in the exercises.

There are some misprints in the text, some of which are in references to previous results. The most surprising "misprint" however, is the following ".... l'operateur qui transforme la fonction f(t) en la fonction tf(t) " The unbeliever may find this on lines 6 and 7 on the page immediately following page 86 and preceeding page 88. The page (appropriately) is not numbered.

Roger Rigelhof, McGill University

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