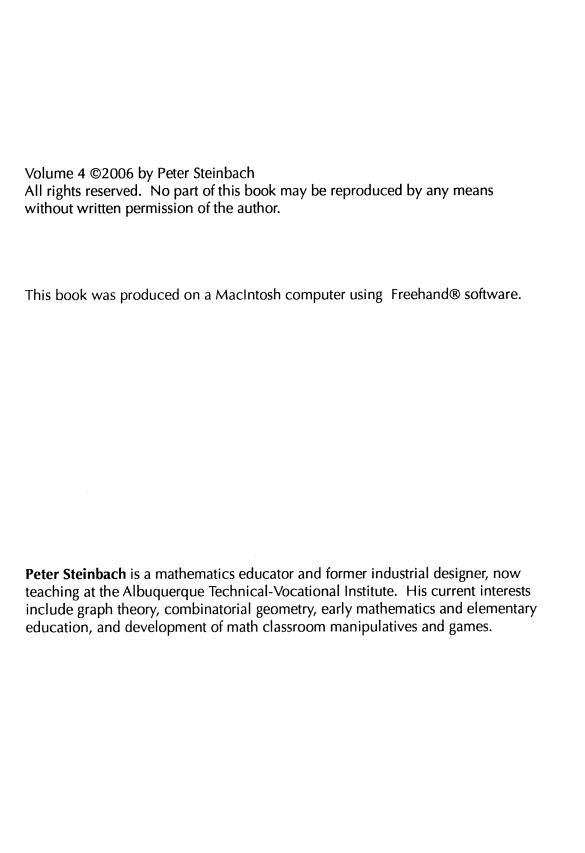
field guide to SIMPLE GRAPHS

Volume 4: Edges & Components

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Preface

THESE ARE ODDS & ENDS that I generated over the years because they were useful to me. I hope that others can use them too. Chapter 1 classifies graphs by numbers of edges and components, with vertices as the last consideration. Chapter 2 is on probabilities of graphs generated by random edge addition — the button-and-thread game so popular these days among biochemists and others concerned with emergent properties. Chapter 3, Forests, is a glaring omission from the Book of Trees. Still, it is appropriate here for counting edges and components.

The next chapters apply graph theory to partially ordered sets (posets). A Power Set is the poset of subsets of a finite set. A Finite Topology is a special sub-poset of a power set, containing all internal intersections and unions. Indeterminate Sums, Chapter 6, charts the partial order of sums in a collection of positive numbers. And Hasse Diagrams are blank posets.

January 2006

for Kathleen Ann

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