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Projections of s-sets of integral dimension; 6.3 Projections of arbitrary sets of integral dimension; 6.4 Notes and references; Exercises; Chapter 7 Products of fractals; 7.1 Product formulae; 7.2 Notes and references; Exercises; Chapter 8 Intersections of fractals; 8.1 Intersection formulae for fractals; 8.2 Sets with large intersection; 8.3 Notes and references; Exercises  
Part II Applications and Examples Chapter 9 Iterated function systems-self-similar and self-affine sets; 9.1 Iterated function systems; 9.2 Dimensions of self-similar sets; 9.3 Some variations; 9.4 Self-affine sets; 9.5 Applications to encoding images; 9.6 Zeta functions and complex dimensions; 9.7 Notes and references; Exercises; Chapter 10 Examples from number theory; 10.1 Distribution of digits of numbers; 10.2 Continued fractions; 10.3 Diophantine approximation; 10.4 Notes and references; Exercises; Chapter 11 Graphs of functions; 11.1 Dimensions of graphs  
11.2 Autocorrelation of fractal functions 11.3 Notes and references; Exercises; Chapter 12 Examples from pure mathematics; 12.1 Duality and the Kakeya problem; 12.2 Vitushkin's conjecture; 12.3 Convex functions; 12.4 Fractal groups and rings; 12.5 Notes and references; Exercises; Chapter 13 Dynamical systems; 13.1 Repellers and iterated function systems; 13.2 The logistic map; 13.3 Stretching and folding transformations; 13.4 The solenoid; 13.5 Continuous dynamical systems; 13.6 Small divisor theory; 13.7 Lyapunov exponents and entropies; 13.8 Notes and references; Exercises  
Chapter 14 Iteration of complex functions-Julia sets and the Mandelbrot set

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#### Sommario/riassunto

"This comprehensive and popular textbook makes fractal geometry accessible to final-year undergraduate math or physics majors, while also serving as a reference for research mathematicians or scientists. This up-to-date edition covers introductory multifractal theory, random fractals, and modern applications in finance and science. New research developments are highlighted, such as porosity, while covering other much more sophisticated topics, such as fractal aspects of conformal invariance, complex dimensions, and non-commutative fractal geometry. The book emphasizes dimension in its various forms, but other notions of fractality are also prominent"--  
"This comprehensive, accessible and very popular textbook presents fractal geometry at a level accessible to a final year undergraduate mathematician or physicist whilst also providing a useful primer or reference for the research mathematician or scientist"--

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