

Contents

1	What Is Topology?	1
	Euler's Theorem 7	
2	New Surfaces	16
	Orientability 20; Dimension 22;	
	Two More Surfaces 25; The Klein Bottle 27	
3	The Shortest Moebius Strip	32
4	The Conical Moebius Strip	40
5	The Klein Bottle	50
6	The Projective Plane	64
	Symmetry 68	
7	Map Colouring	88
8	Networks	98
	The Koenigsberg Bridges 98;	
	Betti Numbers 100; Knots 107	
9	The Trial of the Punctured Torus	110

10	Continuity and Discreteness	120
	The 'Next Number' 120; Continuity 121; Neighbourhoods 124; Limit Points 126	
11	Sets	130
	Valid or Merely True? 130; Venn Diagrams 131; Open and Closed Sets 139; Transformations 145; Mapping 150; Homotopy 153	
	In Conclusion	157
	Appendix	159
	Index	165