

# CONTENTS

1	What Is Topology?	I
	Euler's Theorem 10	
2	New Surfaces	20
	Orientability 25; Dimension 28;	
	Two More Surfaces 31; The Klein Bottle 34	
3	The Shortest Moebius Strip	40
4	The Conical Moebius Strip	50
5	The Klein Bottle	62
6	The Projective Plane	78
	Symmetry 82	
7	Map Coloring	108

<b>8</b>	<b>Networks</b>	<b>120</b>
	The Koenigsberg Bridges 120; Betti Numbers 123; Knots 132	
<b>9</b>	<b>The Trial of the Punctured Torus</b>	<b>136</b>
<b>10</b>	<b>Continuity and Discreteness</b>	<b>149</b>
	The "Next Number" 149; Continuity 151; Neighborhoods 154; Limit Points 158	
<b>11</b>	<b>Sets</b>	<b>162</b>
	Valid or Merely True? 162; Venn Diagrams 164; Open and Closed Sets 174; Transformations 182; Mapping 188; Homotopy 192	
	<b>In Conclusion</b>	<b>197</b>
	<b>Appendix</b>	<b>200</b>
	<b>Index</b>	<b>207</b>