

Student's preface	ix
Teacher's preface	xi
Acknowledgments	xiii
1 LOGIC	1
1.1 Introduction, 1	
1.2 Key Terms, 3	
<i>Exercises, 7</i>	
2 IF	9
2.1 Compound Statements, 9	
2.2 Symbolizing Conditionals, 10	
2.3 Arrow Out, 14	
<i>Exercises, 20</i>	

3	AND	24
3.1	Symbolizing Conjunctions, 24	
3.2	Ampersand In, 28	
3.3	Ampersand Out, 30 <i>Exercises, 33</i>	
4	IF (AGAIN)	41
4.1	Symbolizing Difficult Conditionals, 41	
4.2	Arrow In, 45 <i>Exercises, 53</i>	
5	NOT	62
5.1	Symbolizing Negations, 62	
5.2	Tilde In, 66	
5.3	Tilde Out, 70 <i>Exercises, 74</i>	
6	IFF	84
6.1	Symbolizing Biconditionals, 84	
6.2	Double Arrow In and Out, 85 <i>Exercises, 88</i>	
7	OR	95
7.1	Symbolizing Disjunctions, 95	
7.2	Wedge In, 97	
7.3	Wedge Out, 100 <i>Exercises, 104</i>	
8	RÉSUMÉ	114
8.1	Summary of Inference Rules, 114	
8.2	Proof Strategy, 117	
8.3	Definitions, 120 <i>Exercises, 123</i>	

9	DERIVED RULES	132
9.1	Eight Additional Rules, 132	
9.2	Proof Strategy, 137	
9.3	Substitution Instance, 141	
	<i>Exercises</i> , 144	
10	TRUTH TABLES	153
10.1	Constructing Truth Tables, 153	
10.2	Testing Arguments, 158	
	<i>Exercises</i> , 161	
11	BRIEF TRUTH TABLES	168
11.1	Proving Invalidity, 168	
11.2	Proving Validity, 171	
	<i>Exercises</i> , 174	
12	STATEMENTS	179
12.1	Logical Truths, 179	
12.2	Contradictions, 182	
12.3	Contingent Statements, 184	
	<i>Exercises</i> , 186	
13	LOGICAL RELATIONS	188
13.1	Entailment, 188	
13.2	Logical Equivalence, 190	
	<i>Exercises</i> , 194	
14	NATURAL ARGUMENTS	199
14.1	Identification, 199	
14.2	Formalization, 202	
14.3	Evaluation, 205	
	<i>Exercises</i> , 206	

viii	Contents		
	appendix 1	IS PROPOSITIONAL LOGIC RELIABLE?	214
	appendix 2	ALTERNATIVE SYMBOLS	218
	appendix 3	SOLUTIONS TO STARRED EXERCISES	219
	Index		230