Contents

Introduction vii
1 Structure of this book vii
2 The Putnam Competition over the years viii
3 Advice to the student reader ix
4 Scoring x
5 Some basic notation xi
6 Acknowledgements xi

Problems 1

Hints 35

Solutions 51
The Forty-Sixth Competition (1985) 53
The Forty-Seventh Competition (1986) 65
The Forty-Eighth Competition (1987) 76
The Forty-Ninth Competition (1988) 88
The Fiftieth Competition (1989) 101
The Fifty-First Competition (1990) 116
The Fifty-Second Competition (1991) 135
The Fifty-Third Competition (1992) 154
The Fifty-Fourth Competition (1993) 171
The Fifty-Fifth Competition (1994) 191
The Fifty-Sixth Competition (1995) 204
The Fifty-Seven Competition (1996) 217
The Fifty-Eighth Competition (1997) 232
The Fifty-Ninth Competition (1998) 250
The Sixtieth Competition (1999) 262
The Sixty-First Competition (2000) 278

Results 295
Individual Results 295
Team Results 301

xiii