

Contents

I. A Brief History of Specialized Mathematics Schools	1
<i>Alexander Karp, Teachers College Columbia University</i>	
II. European Special Schools	19
<i>Julianna Connelly Stockton, Sacred Heart University</i>	
Part 1: Hungarian Special Schools	
Part 2: Other Eastern European Schools	
III. Russian Mathematics Schools	31
<i>Albina Marushina, Teachers College Columbia University</i>	
<i>Daniel McGee, University of Kentucky</i>	
IV. American Special Schools	
Part 1: Specialized High Schools in New York City	49
<i>Stuart Weinberg, Teachers College Columbia University</i>	
Part 2: American Special Residential Schools	65
<i>Daniel Teague, North Carolina School of Science and Mathematics</i>	
V. Latin American Special Schools	
Part 1: Development of Mathematical Talent in Cuban Pre-University Education	91
<i>Otilio B. Mederos, Central University of "Las Villas," Cuba and Coahuila Autonomous University of México</i>	
<i>Rita A. Roldán, University of Havana</i>	
Part 2: Central American Special Schools	113
<i>Víctor Buján, University of Costa Rica</i>	

VI. Middle Eastern Special Schools	
Part 1: Mathematics for Students with High Mathematical Potential in Israel	117
<i>Roza Leikin, University of Haifa, Israel</i>	
<i>Abraham Berman, Technion, Israel</i>	
Part 2: Jordan's Jubilee School	145
<i>Rana Alabed, The Jubilee School</i>	
<i>Suha Jouaneh, The Jubilee School</i>	
VII. North Asian Special Schools	
Part 1: Korean Special Secondary Schools	159
<i>Jinho Kim, Daegu National University of Education</i>	
Part 2: Gifted Education in Japan	171
<i>Kazuko Ito West, Keio Academy of New York</i>	
Part 3: Gifted and Talented Education in China: Youth Classes and Science Experiment Classes	185
<i>Wei Sun, Towson University, Maryland</i>	
<i>Xiaoxi Tian, Teachers College Columbia University</i>	
VIII. South Asian Special Schools	
Part 1: Singapore's Gifted Education Project (GEP)	195
<i>Bruce R. Vogeli, Teachers College Columbia University</i>	
<i>Stuart Weinberg, Teachers College Columbia University</i>	
Part 2: Vietnamese Gifted Education	203
<i>Nam Pham, Phan Boi Chau High School for Gifted Students</i>	
<i>Phuc Nguyen-Dang, Hue University</i>	
IX. Provisions for Australia's Mathematically Talented High School Students	211
<i>Max Stephens, The University of Melbourne</i>	

X. The Future of Special Schools Around the World	225
<i>Bruce R. Vogeli, Teachers College Columbia University</i>	

Appendices

Appendix A: European Special Schools	233
A1. Hungarian Curriculum 1970	234
A2. Fazekas Gimnázium Curriculum 1995–1996	236
A3. Curricula from Lovassy László Gimnázium, Veszprem—Special Mathematics Class as of 2004	242
A4. Curricula from Berzsenyi Daniel Gimnázium, Budapest as of 2009	246
A5. Entrance Examination for Fazekas Gimnázium 2007	248
Appendix B: Russian Special Schools	249
B1. MGU Kolmogorov Boarding School Mathematics Curriculum 2011	250
B2. List of Recommended Quizzes	265
B3. Lyceum #30 Eighth Grade Admission Test Questions	269
Appendix C: New York City Special Secondary Schools	275
C1. Bronx High School of Science Mathematics Courses	276
C2. Brooklyn Technical High School Mathematics Courses	278
C3. Stuyvesant High School Mathematics Courses	284
Appendix D: American Special Residential Schools	289
D1. Mathematics Courses offered at the North Carolina School of Science and Mathematics	290
D2. Mathematics Courses offered at the Louisiana School of Math, Science, and the Arts	291
D3. Mathematics Courses offered at the Illinois Mathematics and Science Academy	292
D4. Mathematics Courses offered at the Mississippi School for Mathematics and Science	293

Special Secondary Schools for the Mathematically Talented

D5.	Mathematics Courses offered at the Texas Academy of Mathematics and Science	294
D6.	Mathematics Courses offered at the South Carolina Governor's School for Science and Mathematics	295
D7.	Mathematics Courses offered at the Indiana Academy for Science, Mathematics, and the Humanities	296
D8.	Mathematics Courses offered at the Alabama School of Mathematics and Science	297
D9.	Mathematics Courses offered at the Oklahoma School of Science and Mathematics	298
D10.	Mathematics Courses offered at the Massachusetts Academy of Math and Science at WPI	299
D11.	Mathematics Courses offered at the Arkansas School for Mathematics, Science, and the Arts	300
D12.	Mathematics Courses offered at the Maine School of Science and Mathematics	301
D13.	Mathematics Courses offered at the Missouri Academy of Science, Mathematics, and Computing	302
D14.	Mathematics Courses offered at The Carol Martin Gatton Academy of Mathematics and Science in Kentucky	303
Appendix E: Latin American Special Schools		305
E1.	Comments of Prominent Graduates of Cuban Special Schools	306
E2.	Lenin Boarding School Mathematics Curriculum	316
E3.	IPVCE Entrance Examination	325
E4.	2012 Examination	332
Appendix F: Middle Eastern Special Schools		339
F1.	Sample Problems from an Israeli Matriculation Examination at High Level	340
F2.	Jubilee School Worksheets	344
F3.	Jubilee School Mathematics Curriculum	354

Contents

Appendix G: North Asian Special Schools	357
G1. Korean SHS Mathematics Courses	358
G2. Japan's Komaba High School Mathematics Curriculum	360
G3. Tokyo University Mathematics Entrance Examination 2010	365
G4. Example of Senior-year Research Paper by a Student of Komaba High School	369
G5. Sample Mathematics Syllabus for China's Science Experiment High Schools	387
G6. About Japanese Entrance Examinations	379
Appendix H: South Asian Special Schools	391
H1. Vietnamese Special Schools Mathematics Curriculum	392
H2. Inside Vietnam's Gifted High Schools—Student-Teacher Comments	403
H3. Vietnamese Entrance Exam	406
H4. Singapore Special Schools Mathematics Curriculum	412
H5. 2014 Program of Studies: Mathematics Modules	414
H6. Da Vinci Programme Module Descriptions	423
Appendix I: Australian Special Schools	427
I1. Australian (State of Victoria) 11th and 12th Year Mathematics Courses	428
I2. Australian (State of Victoria) Extension Studies Content	431
Index	433