

Exeter Math Club Contest

January 30, 2010



Contents

Organizing Information	iv
Contest day information	v
1 The Problems	1
1.1 Individual Speed Test	2
1.2 Individual Accuracy Test	4
1.3 Team Round	5
1.4 Guts Round	7
1.4.1 Round 1	7
1.4.2 Round 2	7
1.4.3 Round 3	8
1.4.4 Round 4	8
1.4.5 Round 5	9
1.4.6 Round 6	9
2 Answer Keys	11
2.1 Individual Speed Test Answer Keys	12
2.2 Individual Accuracy Test Answer Keys	13
2.3 Team Round Answer Keys	14
2.4 Guts Round Answer Keys	15
3 The Solutions	17
3.1 Individual Speed Test Solutions	18
3.2 Individual Accuracy Test Solutions	21
3.3 Team Round Solutions	24

Organizing Information

- *Tournament Directors*
Ravi Charan, David Xiao
- *Tournament Supervisor*
Zuming Feng
- *System Administrator and Webmaster*
David Xiao
- *Problem Committee*
Ravi Charan, In Young Cho, Zuming Feng, Yong Wook Spencer Kwon, Anubhav Sinha, Shijie Joy Zheng
- *Packet reviewers*
Chris Jeuell, Zuming Feng, Richard Parris, Greg Spanier, Yunhua Xu
- *Problem Contributors*
Ravi Bajaj, Ravi Charan, Jiapei Chen, Shi-Fan (Stephen) Chen, In Young Cho, Albert Chu, Mihail Eric, Zuming Feng, Jiexiong (Chelsea) Ge, Chong Gu, Hoon Pyo (Tim) Jeon, Harini Kannan, Changlin Ke, Gwangseung (Eric) Kim, Adisa Kruayatidee, Yong Wook (Spencer) Kwon, Harlin Lee, Harold Li, Yidan Li, Jamin Liu, Daniel Lu, Dawna Men, Richard Parris, Seungyeon (Stephany) Rhee, Anubhav Sinha, David Xiao, Lealia Xiong, Abdullah Yousufi, Shijie (Joy) Zheng
- *Participating Organizations*
Bigelow Middle School, Century Chinese Language School, Diamond Middle School, Eaglebrook School, F.A. Day Middle, IDEA Math, Jonas Clarke Middle School, Lincoln Middle School, Math Counts GBS, Nissitissit Middle School, Oyster River Middle School, The Well School
- *Tournament Sponsors*
Art of the problem Solving, IDEA Math

Contest day information

- *Proctors*

Proctor	Team	Team Code	Location
In Young Cho	NACS	13	ACD 008 (Swift)
Hoon Pyo (Tim) Jeon	Clarke B	11	ACD 007 (Seidenberg)
Gwangseung (Eric) Kim	Nissitissit Falcons	53	ACD 109 (Marshall)
Adisa Kruayatidee	The Wombats	3	ACD 004 (Feng)
Jamin Liu	Lion	23	ACD 102 (Girard)
Daniel Lu	CCLS	37	ACD 105 (Kaminski)
Seungyeon (Stephany) Rhee	Eaglebrook 2	47	ACD 108 (Keeble)
Anubhav Sinha	Math Magicians	17	ACD 009 (Coogan)
Lealia Xiong	Bigelow MS	31	ACD 104 (Spanier)
Chong Gu	Lincoln Logs	41	ACD 106 (Chen)
David Moon	Tiger	19	ACD 021 (Stahr)
Yidan Li	Bear	29	ACD 103 (Wolfson)
Yunxuan (Will) Zhang	Clarke A	7	ACD 006 (Parris)
Yunjee Kang	Oyster River	59	ACD 206 (Bergofsky)
Ted Lee	GBS	61	ACD 207 (Holden)
Gye Hyun Baek	Eaglebrook 1	43	ACD 107 (Mallinson)

- *Lunch*

- *Graders*

Jiapei Chen, Albert Chu, Yong Wook (Spencer) Kwon, Theo Motzkin, Christina Po, David B Rush, Shijie (Joy) Zheng

- *Judges*

Zuming Feng, Greg Spanier

- *Runners*

Michelle (Hannah) Jung, Abdullah Yousufi

- *Breakfast and Lunch Setup*

Yousufi (Chelsea) Ge, Yvonne Guu, Harlin Lee