

Al Kalfus Long Island Math Fair

March 8, 2019

Preliminary Round Suffolk County Community College Ammerman Campus, Selden

Long Island Math Fair Committee

**Joyce Bernstein, Alan Blayne, Christine Brown, Jerry Chen, Ian Dunst,
Lynda Hennig, Lucille Hunter, Richard Hunter, Nat Janoff, Marlene Kalfus, Myung-Chul Kim,
Maxine Lifshitz, Christine Pette, Joseph Quartararo, Paulette Quartararo, Sylvia Silberger,
Terry Springer, Charles Windwer**

In Memory of our Founder Alfred Kalfus

Long Island Math Fair Sponsors

**Suffolk County Community College, Suffolk County Mathematics Teachers Association,
Nassau County Mathematics Teachers Association, and Nassau County Association of Mathematics
Supervisors**

Program

Suffolk County Community College

Judges and Students check-in by 3 pm

Student Center

Judging Preliminary Round: 3:15 pm

Building Key

Babylon Student Center	C	Islip Arts Building	I
Riverhead Technology Building	R	Smithtown Science Building	T

Special Thanks

**We would like to give special thanks to Jerry Chen and Myung-Chul Kim for all the on-site planning at
Suffolk County Community College for this year's Fair.**

<u>Judge's Name</u>		<u>School</u>
Andrejkovics	Michael	Northport High School
Baglobind	Ashley	West Hollow Middle School
Bieringer	Bob	Friends Academy
Boyle	Jim	Hauppauge Middle School
Burke	Kevin	East Northport Middle School
Cannata	Lisa	Half Hollow Hills HS East
Carlson	Michael	East Moriches School
Ciolfi	Tom	Half Hollow Hills HS East
D'Agostino	Joe	Freeport High School
DelGuidice	Joe	Half Hollow Hills HS East
Demaio	Karen	Hauppauge Middle School
D'Onofrio	Amanda	Candlewood Middle School
Downer	Matt	Half Hollow Hills HS West
Dunaiett	Stephanie	Half Hollow Hills HS East
Ferlazzo	Brittni	Copiague Middle School
Ficcarrota	Jeena	Half Hollow Hills HS West
Fox	Patti	Half Hollow Hills HS West
Fricke	Danielle	West Hollow Middle School
Goldman	Steve	Half Hollow Hills HS East
Hartmann	Kathleen	East Northport Middle School
Hayes	Kathryn	East Moriches School
Java	Denise	Half Hollow Hills HS West
Jewell	Cindy	Frost Middle School
Kubik	Glenn	East Northport Middle School
Kugler	Dorothy	Nassau Community College
Kuveke	Ashley	Northport High School
Lykos	Matoula	Half Hollow Hills HS East
Maguire	Ashley	Half Hollow Hills HS West
Maroney	Matt	Half Hollow Hills HS West
McBride	Heather	Half Hollow Hills HS East
McCarthy	Stephanie	Half Hollow Hills HS East
McGinn	Donna	Northport Middle School
Middleton	Ryan	Northport High School
Minnigan	Tom	East Northport Middle School
Nolan	Erin	Friends Academy
Nordstrom	Ed	West Hollow Middle School
Pannell	Tiffany	Half Hollow Hills HS East
Perico	Anthony	Northport High School
Pope	Derek	Commack High School
Prinzivalli	Emily	Candlewood Middle School

<u>Judge's Name</u>		<u>School</u>
Ringhoff	Lisa	East Moriches School
Rountos	Muriel	East Moriches School
Rozell	Kristen	Northport High School
Rubcewich	Dana	Finley Middle School
Ruthkowski	Brian	Northport High School
Shea	Tom	Commack High School
Steinberg	Oren	Friends Academy
Sturchio	Alison	West Hollow Middle School
Temme	Stephen	Copiague Middle School
Vartelatos	Speros	Freeport High School
Ward	Brittany	Half Hollow Hills HS East
Winter	Patrick	Northport High School

<u>Last Name</u>	<u>First Name</u>	<u>Grade</u>	<u>Team</u>	<u>Topic</u>	<u>Room</u>
Candlewood MS					
Afzul	Rayan	7		Math in Sports	R205
Morris	Jordyn	7		Math in the Hunger Games	R207
Leace	Riley	7	Team A	Matrices in Sports	R200
McKinney	Marie	7	Team A	Matrices in Sports	R200
Williams	Isabella	7	Team A	Matrices in Sports	R200
Felber	Rebecca	8		Math in Music	R210
Commack HS					
Hsu	Ashley	9		The Harmonic Series	R224
Won	Kevin	9		Area Under A Curve	R225
Yang	David	9		Chinese Remainder Theorem	R228
Zemer	Chapin	10		Evolutionary Game Theory	R234
Robinson	Paige	11		Partitions	T111
Copiague MS					
Barredo	Shenn	7		The Chinese Remainder Theorem	R208
Peralta	Gislelle	7		Pick's Theorem	R205
Singh	Johnathon	7		The Banach-Tarski Paradox	R207
Huynh	Samantha	8		Pascal's Triangle	R214
Peguero Rosario	Edison	8		The Fibonacci Numbers	R216
Sztabinski	Alice	8		Math and Space	R210
Tetlak	Dominique	8		Math In Music	R220
East Moriches MS					
Baryk	Alexander	7		The Big Bang Theory	R208
Hopkins	Evan	7		Famous Mathematicians	R205
Wendel	Gabriella	7		The Theory of Relativity	R207
Gormley	Sarah	7	Team B	4th Dimensions	R200
Worby	Peyton	7	Team B	4th Dimensions	R200
Hendrickson	Jack	7	Team C	Fibonacci Sequence	R201
Leuthardt	Aiden	7	Team C	Fibonacci Sequence	R201
Lianzo	Bryce	7	Team C	Fibonacci Sequence	R201
Dunathan	Sora	8		Master Mind Logic	R214
Gaynor	Kaylie	8		Graphs & Graphing	R216
Verrelli	Laura	8		Probability with Dice	R220
Hoffman	Shane	8	Team A	Optical Illusions	R202
Ryan	Jillian	8	Team A	Optical Illusions	R202
East Northport MS					
Masone	Giuliana	7		The Golden Ratio	R208
Tuthill	Luke	7		Game Theory	R205
Wickard	Emily	7		Inifinity	R207
Mara	Anne	8		The Number e	R210
D'Souza	Joshua	8	Team A	Inifinity	R204
Mainetti	Victor	8	Team A	Inifinity	R204
Ansell	Zoe	8	Team B	Golden Ratio	R202
Jackson	Abigail	8	Team B	Golden Ratio	R202

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Friends Academy					
Davis	Avery	7		Albert Einstein and his Photoelectric Effect	R208
Peiris	Senuli	7		Cartography	R205
Basra	Diya	7	Team A	Theories of Relativity	R200
Constantino	Clementine	7	Team A	Theories of Relativity	R200
Martin	Ben	8		Optical Illusions	R214
Englander	Charles	8	Team A	Numeric Systems in Computer Operating Systems and	R202
Mummers	Rigel	8	Team A	Numeric Systems in Computer Operating Systems and	R202
Carden	Olivia	8	Team B	Theory of Relativity	R204
Tauter	Natalia	8	Team B	Theory of Relativity	R204
Chen	Joshua	8	Team C	Business Management	R204
Wang	Richard	8	Team C	Business Management	R204
Yang	Matthew	8	Team C	Business Management	R204
Frost MS					
Jiang	Jimmy	8		Trigonometric Functions	R216
Mendell	Steven	8	Team A	Math and Music	R202
Naqvi	Sarah	8	Team A	Math and Music	R202
Half Hollow Hills HS East					
Bank	Lindsay	9		Population Growth	R231
Curtis	Leila	9		Non-Euclidean Geometry	R232
Garelick	Julia	9		Pythagorean Theorem in Geometry	R224
Goldstein	Meri	9		Matrices and their Applications	R225
Hsiao	Chloe	9		Math in Volleyball	R228
Kalina	Brianna	9		Statistics	R232
Keskinycn	Chase	9		Markov Chains	R231
Kim	Max	9		Zenos Paradoxes	R224
Kugler	Jolie	9		Logic and Circuit Theory with Applications	R225
Lefcofides	Julianna	9		Cluster Analysis	R228
Nambiar	Anand (AJ)	9		Fractals	R232
Patel	Rohan	9		The Binary Number System	R224
Raziel	Sophia	9		Population Growth	R225
Salkinder	Daniel	9		What is a Limit?	R228
Schioppo	Madison	9		Math in Music	R231
Wang	Maggie	9		Game Theory (Prisoners Dilema)	R232
Zaroff	Abigail	9		Relativity	R231
Zinkin	Alana	9		Crptography	R225
Damico	Juliana	10		Math and Medicine	R236
Dhanikonsa	Sriya	10		Chi-Square	R237
Goldstein	Rachel	10		Taxicab Geometry	R238
Hoxha	Kevin	10		The Black -Scholes Model	R234
Keskinycn	Dylan	10		Polite Numbers	R236
Martin	Jillian	10		Spacetime/Higher Dimentionality	R237
Moon	Elizabeth	10		Mathematical Analysis of Art	R238
Sachs	Jennifer	10		Classical Ruin Theory in Discrete Time Models	R234
Sharma	Suraj	10		Volume: The disk and the washer methods	R236

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Shetty	Sohan	10		Chaos Theory	R237
Abrams	Sarah	11		The Mathematical Reality	T112
Bigman	Rachel	11		Neural Networks	T113
Bocian	Rachel	11		Chi-Square	T114
Cook	Taylor	11		The 4 Color Theorem	T121
Dircks	Sam	11		The Brachistochrone	T122
Gole	Megan	11		Fuzzy Logic	T111
Greenberg	Annabelle	11		Pascals Triangle	T112
Herath	Ramin	11		Game Theory	T113
Huo	Peter	11		Relativity and Transformation	T114
Kugler	Calia	11		Patterns between the number of cevians or calians and	T121
Likos	Nicholas	11		Integration	T122
Mishra	Shivan	11		Bayes Theorem	T111
Nagpal	Jay	11		Black Scholes Formula	T112
Rizvi	Sarah	11		The Simplex Method	T113
Stern	Emily	11		Math Behind Board Games	T114
Suneja	Shreya	11		Networks	T122
Ye	Cassandra	11		The Brachistochrone Curve	T121
Half Hollow Hills HS West					
Alexander	Benjamin	9		The Fixed Area of a Triangle	R228
Barakzai	Roya	9		The Friendship Paradox	R231
McKinney	Marlene	9		Population Growth in Fire Ant Rafts	R232
Osborn	Victoria	9		Mathematics in Astronomy	R224
Rogers	Olivia	9		Kepler's Law of Planetary Motion	R225
Seid	Sydney	9		Math in Astronomy	R231
Fass	Marly	10		Mobius Strip	R234
Kim	Suejin	10		Jospheus Problem	R237
Barakzai	Sabrina	11		Pascal's Triangle	T111
Blasi	Vanessa	11		Hidden Math in Softball	T112
Cardito	Joseph`	11		Business Management	T113
Fulep	Jeffrey	11		Battleship	T114
Osborn	Kathryn	11		Trachtenberg Speed System	T121
Stein	Hannah	11		Simpson Paradox	T122
Stern	Jayson	11		The Math of Counting Cards	T111
Hauppauge HS					
Vasilakopoulos	Alex	10		Patterns in Pythagorean Triples	R238
Hauppauge MS					
Adabala	Srihan	7		Bianary Numbers	R207
Mallisetty	Sreenand	8		Mathematical Ingenuity in the spider web	R220
Benkal	Kaustubh	8	Team A	Matrices	R204
Namineni	Dharmik	8	Team A	Matrices	R204

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Herricks MS					
Cheng	Megan	8		Pascals Triangle	R210
Kapoor	Namit	8		Binary System	R214
Lau	Carolyn	8		The Mathematics Behind Bitcoin	R216
Rasquinha	Ranjan	8		Conic Sections	R220
Soni	Tanush	8		Math in Flight	R210
Thway	Ethan	8		Math & Ants	R214
Huntington HS					
Knowles	Andrew	11		Sperner's Lemma	T112
ICPS					
Sun	William	11		p-adic Absolute Values	T113
Lawrence HS					
Mendoza	Mia	9		Accelerated Motion	R232
Manhasset HS					
Gauld	Kevin	11		Game Theory	T114
Northport HS					
McEnroe	Ryan	9		Probability in Genetics	R224
Slevin	Olivia	9		Matrices	R228
Schuvart	Mckenzie	10		The Mobius Strip	R236
Borovikova	Sophia	11		Plane Patterns	T121
Krantz	Teddy	11		Gerrymandering	T122
Levanti	Danielle	11		The Challenges Associated with Modelling Linear	T111
Mitard	Kyle	11		How Calculus Makes Things Easier	T112
Penrose	Kevin	11		Code Breaking	T114
Thomas	Jonah	11		Optimization Calculus	T121
Stimson MS					
Campo	Rosalia	7		Fibonacci Numbers	R208
Denis	Elana	7	Team A	Architecture in Math	R201
Licican	Angelina	7	Team A	Architecture in Math	R201
Slansky	Grayson	8		Math in Weather	R210
Sobina	Nathaniel	8		Math in Roulette	R214
Villella	JT	8		Does Screen Time Affect G.P.A.	R216
West Hollow MS					
Ponnusamy	Niyanth	7		Matrix Algebra	R205
Shah	Rhea	7		Sequences & Series	R207
Joseph	Aidan	7	Team A	Stock Market	R200
Patel	Sachin	7	Team A	Stock Market	R200
Roberts	Justin	7	Team A	Stock Market	R200
Bernstein	Kaitlyn	7	Team C	Mobius Strip	R201
Selizhuk	Stasya	7	Team C	Mobius Strip	R201
Ganesan	Gayathri	7	Team D	Trachtenberg Speed System	R201
Mody	Khushi	7	Team D	Trachtenberg Speed System	R201
Senthilkumar	Shruthika	7	Team D	Trachtenberg Speed System	R201
Peskin	Ryan	8		What is the Probability of an NFL team making the	R220

Last Name	First Name	Grade	Team	Topic	Room
Rudes	Ryan	8		Estimating the Age of the Universe	R216
Wu	Jason	8		Area Under the Curve	R214
Wheatley School					
Yagoda	Emily	11		Solving Rubik's Cube with Musical Chord Progressions	T122