

# Al Kalfus Long Island Math Fair

April 12, 2019

Final Round

Hofstra University

## 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, M.C. 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

Hofstra University and the Suffolk County Mathematics Teachers Association, the Nassau County Mathematics Teachers Association, and the Nassau County Association of Mathematics Supervisors

## Program

2:30PM Judges check in at Student Center Room 145

3:00PM Judges pick up students at Student Center and walk to assigned room

3:30-6:00PM Judging

## Building Key

A	Adams	25	BR	Breslin	23	C	Calkins	14
D	Davison	8	GAL	Galwing	5	HE	Heger	4
L	Lowe	9	MA	Mason	5	ME	Memorial	1
N	Netherlands	33	R	Roosevelt	19	S	Starr	60
SC	Student Cntr	31	W	Weed	26	CHP	Berliner	61

## Special Thanks

We would like to give special thanks to Sylvia Silberger for all the on-site planning at Hofstra University for this year's Fair.

<u>Judge's Name</u>		<u>School</u>
Abruzzo	Danielle	Woodland Middle School
Ahmed	Rakib	Elmont Memorial High School
Alt	Matthew	HAFTR
Andrejkovics	Michael	Northport High School
Arengo	Sebastian	Long Beach Middle School
Augenblick	Rebecca	Kennedy High School POB
Baglobind	Ashley	West Hollow Middle School
Barbarette	Rick	Lawrence High School
Barrera	Christina	Manhasset High School
Beach	Bryan	Schreiber High School
Beleckas	John	The Wheatley School
Berrios	Melinda	Hicksville High School
Boyle	Jim	Hauppauge School District
Breckner	Stephen	Nassau Community College
Bruno	Josephine	Herricks Middle School
Calderrero	Lauren	Hicksville High School
Callahan	Chris	Roslyn High School
Candalino	Leigh	Herricks High School
Cannata	Lisa	Half Hollow Hills HS East
Cannatta	Matt	Herricks Middle School
Carlson	Michael	East Moriches School
Carman	Mark	Roslyn High School
Castillo	Belen	Roslyn Middle School
Cetron	Jason	Hicksville High School
Chiarelli	Kim	Stimson Middle School
Cirisane	Anthony	Herricks High School
Cooper	Dave	Herricks Middle School
Demaio	Karen	Hauppauge School District
DeMarinis	Matt	Jericho High School
DiGangi	Diani	Syosset High School
D'Onofrio	Amanda	Candlewood Middle School
Downer	Matt	Half Hollow Hills HS East
Dunaieff	Stephanie	Half Hollow Hills HS East
Ferlazzo	Brittini	Copiague Middle School
Ferrara	Emily	Kennedy High School POB
Ferraro	Mariangela	North Shore Hebrew Academy
Ficarotta	Jeena	Half Hollow Hills HS East
Fonseca	Loretta	Roslyn Middle School
Fox	Patti	Half Hollow Hills HS West
Frayler	Kristen	North Shore Middle School

<u>Judge's Name</u>		<u>School</u>
Fricke	Danielle	West Hollow Middle School
Gallagher	Tina	Schreiber High School
Garcia	Joanne	Jericho High School
Genova	John	Syosset High School
Gerver	Linda	ICPS
Gerver	Rob	ICPS
Gizzi	Gabriella	Roslyn Middle School
Goldman	Steve	Half Hollow Hills HS East
Greene	Nora	North Shore Hebrew Academy
Hart	Stacy	Herricks Middle School
Hume	Elizabeth	Jericho High School
Huntley	Renee	Roslyn Middle School
Ismailescu	Dan	Hofstra University
Javadi	Mohammad	Nassau Community College
Kalish	Art	ICPS
Khan	Alyssa	Herricks Middle School
Khan	Nasir	Freeport High School
Kugler	Dorothy	Nassau Community College
Labrocca	Ron	Hicksville High School
Lamberti	Kristi	ICPS
LaRose	Matt	Manhasset High School
LaSpina	Leon	Bethpage High School
Leary	Jaclyn	Kennedy High School POB
Lee	Soowook	Roslyn High School
Lesser	Jeffrey	HAFTR
Marin	Elisa	South Woods Middle School
Marks	Casey	Schreiber High School
Martin	Jay	Nassau Community College
McBride	Heather	Half Hollow Hills HS East
McDonagh	Christine	East Northport Middle School
Medina	Jackie	Manhasset High School
Mendez	Lisette	Lawrence High School
Meyers	Kevin	The Wheatley School
Middleton	Ryan	Northport High School
Minnigan	Tom	East Northport Middle School
Monaco	Vincent	Thompson Middle School
Montera	Timothy	Copiague High School
Moss	William	Lawrence High School
O'Donnell	Mary Lou	Kennedy High School POB
O'Grady	Nannette	Half Hollow Hills HS West
Orloza	Lilia	Nassau Community College

<u>Judge's Name</u>		<u>School</u>
O'Rourke	Erin	Syosset High School
Osuno	Uzo	Nassau Community College
Ottinger	Julia	Schreiber High School
Pace	Morg Alexis	The Wheatley School
Parisi	Grace	Long Beach Middle School
Paulson	Donald	The Wheatley School
Pellett	MaryClare	Holy Trinity High School
Perico	Anthony	Northport High School
Petras	Laura	Manhasset High School
Pisciotta	Deanna	Woodmere Middle School
Polan	Sondra	East Meadow High School
Pope	Derek	Commack High School
Pournazari	Mahmood	Nassau Community College
Quenque	Lindsey	Herricks High School
Ring	Paul	Clarke High School
Roethal	Chris	Nassau Community College
Rountos	Muriel	East Moriches School
Rubcewich	Dana	Finley Middle School
Ruthkowski	Brian	Northport High School
Ryan	Darwin	Copiague High School
Santoro	Peter	Garden City High School
Scheuerman	Greg	South Woods Middle School
Schorn	Alan	Great Neck North High School
Scott	Erik	Roslyn Middle School
Sherwood	Glenn	Roslyn High School
Siegel	Jon	Hicksville High School
Siegel	Nicole	Hicksville High School
Silverstein	Lauren	Thompson Middle School
Skurnick	Ron	Nassau Community College
Smith	Carolyn	Roslyn Middle School
Solomon	Stephanie	Syosset High School
Steffens	Josh	Roslyn Middle School
Steinberg	Oren	Friends Academy
Sturchio	Alison	West Hollow Middle School
Survilla	Nicole	Jericho High School
Talibon	Janelle	South Woods Middle School
Temme	Stephen	Copiague Middle School
Tesseo	Robert	The Wheatley School
Thomas	Elizabeth	Schreiber High School
Toppi	Michael	East Northport Middle School
Vartelatos	Speros	Freeport High School

<u>Judge's Name</u>		<u>School</u>
Vollaro	Alex	Oceanside High School
Wallad	Carrie-Ann	Herricks High School
Wankel	Charles	North Shore High School
Warren	Lindsay	Thompson Middle School
Winter	Patrick	Northport High School
Young	Diana	Garden City High School

<u>Last Name</u>	<u>First Name</u>	<u>Grade</u>	<u>Team</u>	<u>Topic</u>	<u>Room</u>
<b>Bethpage HS</b>					
Channapatna	Ruchitha	9		Trinomial and Multinomial Theorems	C306
Channapatna	Suchitha	9		Diophantine Equations	GAL13
<b>Candlewood MS</b>					
Chandra	Viti	8	Team A	The Mathematics of Relativity in Astronomy	SC218
Eisenberg	Ellis	8	Team A	The Mathematics of Relativity in Astronomy	SC218
<b>Clarke HS</b>					
Panickssery	Arjun	11		The Mathematics of Voting	BR26
Huda	Shayan	12		Solving the Rubik's Cube Using Algorithms	BR200
<b>Commack HS</b>					
Won	Kevin	9		Area Under A Curve	GAL14
Zemer	Chapin	10		Evolutionary Game Theory	R102
Robinson	Paige	11		Partitions	BR103
<b>Copiague HS</b>					
Falco	Joseph	9		Game Theory's Real Life Applications	C332
Ismael	Zaiba	9		Probability I Genetic Disorders	MA22
Mendoza-Rodriguez	Myra	9		Proving Heron's Formula	GAL16
Mahabur	Liam	12		Special Curves of Calculus	BR202
Nunez	Austin	12		Work as an Integral	BR203
<b>Copiague MS</b>					
Peralta	Giselle	7		Pick's Theorem	D101
Singh	Jonathon	7		The Banach-Tarski Paradox	D16
Huynh	Samantha	8		Pascal's Triangle	HE101
Sztabinski	Alice	8		Math and Space	A109
<b>East Meadow HS</b>					
Caceres	Joaquin	11		Fluid Dynamics	BR28
Fong	Alyssa	11		Statistical Analysis in Pancreatic Cancer Research	BR105
Froehlich	Vanessa	11		Calculus	BR15
Pienkowski	Mateusz	11		The Mathematics of Snowflakes	BR25
<b>East Moriches MS</b>					
Dunathan	Sara	8		Master Mind Logic	A200
Hoffman	Shane	8	Team A	Optical Illusions	SC218
Ryan	Jillian	8	Team A	Optical Illusions	SC218
Sitzmann	Megan	8	Team A	Mathematical Paradoxes	D104
Tully	Emily	8	Team A	Mathematical Paradoxes	D104
<b>East Northport MS</b>					
Masone	Giuliana	7		The Golden Ratio	D14
Wickard	Emily	7		Infinity	D11
Mara	Anne	8		The Number e	HE100
<b>Elmont Memorial HS</b>					
Ahmed	Raheel	8		Eulers Number	A109
Blanfort	Marthe	9		Binomial Theorem	GAL16
Nnabuogor	Nneka	9		Geometry in Nature	GAL13
Agesin	Akinwale	10		Mysteries of Zero	N21

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<b>Finley MS</b>					
Polinsky	Olivia	7		Probability in Genetics	D102
<b>Friends Academy</b>					
Peiris	Senuli	7		Cartography	D16
Englander	Charles	8	Team A	Numeric Systems in Computer Operating Systems	D104
Mummers	Rigel	8	Team A	Numeric Systems in Computer Operating Systems	D104
Barry	Ella	10		Rowing: The Mathematics of the Force Curve	N18
<b>Garden City HS</b>					
Grlic	Mary	9		Fractals in Music	GAL17
Wu	Aidan	9		The Patterns in Pascal's Triangle	MA22
Zheng	Jenny	9		Hilbert's Hotel Paradox	L203
Bailey	Ian	10		Mathematics in Juggling	N15
Padala	Ryan	10		The Likelihood of Physical Perfection and an In-Depth	R110
Riceman	Andrew	10		Sudoku Puzzles and their Solutions	R102
Treanor	Robert	10		The Mathematics Behind Reaching the Speed of Light	R111
Wu	Sarah	11		Thinking Outside the Bach: Music with Sinusoidal Graphs	BR20
Young	Jillian	11		How does Wind Affect the Speed of a Sailboat	BR29
Ban	Yuexuan (Jenny)	12		Mathematics in Art	BR206
Bensen	Alex	12		Dividing up a Polygon into Convex Pieces of Equal Area	BR208
Bensen	John	12		Headlights In a Lightspeed	BR209
Cerrato	Amanda	12		Naperi's Bones	BR211
Gambino	Lindsey	12		Basic Strategy in Blackjack	BR200
Gladd	Chase	12		The Golden Ratio and its Effects on Society and Nature	BR202
Greco	Michael	12		Math Under the Masks	BR203
Morrison	Iain	12		Game Theory	BR206
Padala	Aidan	12		What are the Implications of non-Euclidian Geometries	BR208
Pfaff	Aidan	12		What More Can we Learn from Cepheid Variable Stars?	BR209
Protano	John	12		The Fibonacci Sequence	BR211
Rosato	Nicholas	12		The Math Behind Magic Tricks	BR202
Schmitt	Timothy	12		The chance to Win a Sports Competition	BR200
Smith	Amy	12		Heron's Formula	BR203
<b>Great Neck North HS</b>					
Gruber	Danielle	10		A Comparison of Models for Evidence Accumulation	N15
<b>HAFTR</b>					
Goldschlag	Jonathan	12		Cardinality	BR206
Moskowitz	Justin	12		Prime Numbers	BR208
Winkler	Ethan	12		Knot Theory	BR209
<b>Half Hollow Hills HS East</b>					
Garelick	Julia	9		Pythagorean Theorem in Geometry	GAL14
Keskinycn	Chase	9		Markov Chains	MA20
Kim	Max	9		Zenos Paradoxes	CHP117
Kugler	Jolie	9		Logic and Circuit Theory with Applications	GAL18
Lefcofides	Julianna	9		Cluster Analysis	MA22
Nambiar	Anand (AJ)	9		Fractals	GAL16
Patel	Rohan	9		The Binary Number System	GAL13

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Salkinder	Daniel	9		What is a Limit?	C306
Wang	Maggie	9		Game Theory (Prisoners Dilema)	GAL17
Zinkin	Alana	9		Crptography	L203
Goldstein	Rachel	10		Taxicab Geometry	R13
Keskinycn	Dylan	10		Polite Numbers	N20
Martin	Jillian	10		Spacetime/Higher Dimentionality	R111
Moon	Elizabeth	10		Mathematical Analysis of Art	R15
Sachs	Jennifer	10		Classical Ruin Theory in DIscrete Time Models	N13
Sharma	Suraj	10		Volume: The disk and the washer methods	N15
Shetty	Sohan	10		Chaos Theory	N16
Huo	Peter	11		Relativity and Transformation	BR20
Kugler	Calia	11		Patterns between the number of cevians or calians and	BR18
Likos	Nicholas	11		Integration	BR112
Rizvi	Sarah	11		The Simplex Method	BR111
Suneja	Shreya	11		Networks	BR26
Ye	Cassandra	11		The Brachistochrone Curve	BR25
Ahmed	Arooba	12		Isoperimetric Problems	BR211
Blatt	Ashley	12		Cryptography	BR200
Bordwin	Isabella	12		Fermats Last Theorem	BR202
Clark	Sophia	12		Godels Incompleteness Theorem	BR203
Rappaport	Cole	12		Archimedian Method if Approaching Pi	BR206
Rappaport	Cory	12		Fermats Last Theorem	BR208
Weltman	Mathew	12		The Monty Hall Problem	BR209
<b>Half Hollow Hills HS West</b>					
Alexander	Benjamin	9		The Fixed Area of a Triangle	L211
McKinney	Marlene	9		Population Growth in Fire Ant Rafts	C332
Su	Nina	9		Birthday Paradox	L201
Fulep	Jeffrey	11		Battleship	BR15
Sacchetti	Sophia	11		Probability and Gambling	BR103
<b>Hauppauge HS</b>					
Vasilakopoulos	Alex	10		Patterns in Pythagorean Triples	N18
<b>Hauppauge MS</b>					
Adabala	Srihan	7		Bianary Numbers	D14
Mallisetty	Sreenand	8		Mathematical Ingenunity in the spider web	W100B
Benkal	Kaustubh	8	Team A	Matrices	D104
Namineni	Dharmik	8	Team A	Matrices	D104
<b>Herricks HS</b>					
Balasubramanian	Aadithyaa	9		Genetics and Statistics	GAL14
Kang	Genesis	9		Asymmetric and Symmetric Cryptography	L211
Khondkar	Wafiq	9		Integral Calculus	CHP117
Patnam	Pranati	9		Matrices and Computer Graphics	GAL16
Soni	Keneil	9		Game Theory Within the European Union	GAL13
Zovko	Christopher	9		Conditional Probability and Bayes' Theorem	GAL17
Koe	Justin	10		Machine Learning for Statistical Analysis	N21
Lakshmanan	Haritha	10		Quaternions	R102



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Rasheed	Arfan	10		Octonions	R111
Hsu	Carrie	11		Fourier Series	BR29
Martin	Jared	11		Computer Graphics	BR16
Soni	Hita	12		Fractals in Cancer	BR211
<b>Herricks MS</b>					
Apostolatos	Melina	7		Cryptology	D14
Chan	Preston	7		Game Theory	D11
Huang	Connie	7		Modular Numbers	D17
Karunakar	Vishnitha	7		Prime Numbers	D101
Lo	Ryan	7		Conic Sections	D102
Patel	Khushi	7		Pascal's Triangle	D14
Abraham	Jacob	8		Suspension Bridges	W204
Chheda	Zachary	8		Math and Basketball	W204
Gondal	Ammar	8		Topology	A109
Jha	Ankita	8		The Golden Ratio	A200
Lam	Ashley	8		Pascal's Triangle	A200
Lau	Carolyn	8		The Mathematics Behind Bitcoin	HE100
Lee	Jeylin	8		Math in Volleyball	HE100
Mendez	Alexa	8		Math in Medicine	W100B
Nabi	Sanyah	8		The Golden Ratio	HE101
Rams	Hannah	8		Tessellations	A109
Saini	Rushil	8		Laws of Sine & Cosine	W100B
Shah	Ashay	8		Fibonacci Numbers	ME10A
Soni	Tanush	8		Math in Flight	ME10B
Yang	Mitchell	8		Magic Squares	W100A
<b>Hicksville SD</b>					
Bachhal	Birinder	7		Fibonacci Sequence	D102
Gupta	Pearl	7	Team B	Pascals Triangle	SC141
Walia	Jia	7	Team B	Pascals Triangle	SC141
Agarwal	Siddh	7	Team C	Cryptology	SC142
Raval	Parikej	7	Team C	Cryptology	SC142
Ashraf	Sara	8		The golden ratio	HE100
Malayil	Pratiksha	8		Predicting House Prices using linear regression	ME10A
Jain	Aryan	9		Mathematical Cosmology	C332
Jin	Xiang	9		Network Theory	GAL14
Singh	Ekam	9		Binomial Theorem	GAL18
Anugu	Adith	10		Game Theory	N20
Singh	Navpreet	10		Planck's Constant	R15
Sonika	Aniket	10		Codes and Ciphers	R110
Gupta	Sejal	11		Neural Network	BR100
Jain	Viveka	11		Banach - Tarski Paradox	BR28
Mehta	Somya	11		Math behind Sudoku	BR111
Munn	Laura	11		Polar Coordinate System	BR15
Naqvi	Alina	11		Set Theory	BR20
Nasari	Alaha	11		Game Theory	BR16

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Shamim	Fawziyah	11		The Analysis and Application of the Probablility Theory	BR13
Sivasankaran	Dhanush	11		Banach - Tarski Paradox	BR18
Holy Trinity HS					
DeGeorges	Mia	9		Math in Astronomy	L211
O'Brien	Kassandra	9		Pascal's Triangle	C306
Shebar	Arianna	9		Chinese Remainder Theorem	C332
Rocanova	Isabella	10		A Look Back Using Bayesian Statistics	N18
Huntington HS					
Knowles	Andrew	11		Sperner's Lemma	BR100
ICPS					
Arengo	Maya	10		Infinity	N13
Arengo	Uma	10		Fractal Analysis	N18
Joseph	Victoria	10		Imaginary Numbers	R13
Kampta	Seth	10		Math in Music: Fuzzy Matching	
Manevitz	Matthew	10		Spherical Geometry	N16
Narayan	Rithika	10		Area of Irregular Curved Shapes	R110
Serban	Michelle	10		Factoring & Fibonacci	R108
Valagolam	Davesh	10		Trisecting an Angle	N15
Lampert	Lance	11		Exploring Parabola & Ellipse-like Loci with Mutated Foci	BR111
Sun	William	11		p-adic Absolute Values	BR112
Yang	Madeline	11		Prove Monte Carlo	BR28
Jericho HS					
Chaudhary	Pratim	10		RSA Encryption Mathematics	R13
Hu	William	10		Fuss-Catalan Numbers	R108
Li	Joanne	10		Analysis & Modification of an Outbreak Prediction Model	N16
Ma	Edgar	10		Graph Theory	R15
Ren	Richard	10		Predicting Air Pollution in Beijing Using Regression	R110
Shah	Vyom	10		Self Driving Cars	N20
Wang	Jie Rui (Grace)	10		Prisoner's Dilemma	N13
You	Daniel	10		Modeling a Rubik's Cube with Group Theory	R111
Zhou	Judy	10		Optimal Velocity & Distance from Earth to GEOs	N15
Chen	Austin	11		Strategies to Combinatorial Games	BR20
Dharia	Sohil	11		Using Collatz Conjecture for Fibonacci Numbers	BR105
Pietraski	Miranda	11		Computer Modeling of Planetary Motion	BR25
Sinnan	Keertti	11		Predicting Bite Force in Mammals	BR103
Jericho MS					
Pahlavan	Natalia	8		Solving for Area of Irregular Shapes	W100A
Kennedy HS					
Altstaedter	Alyssa	10		Josephus Problem	N18
Benson	Siean	11		Fourier Series	BR15
Casale	Anthony	11		Applications	BR20
Cheung	Kyle	11		Markov Theory	BR25
Diaz	Juliana	11		Hall's Marriage Theorem	BR105
Futterman	Amanda	11		Koch Snowflake	BR29

<u>Last Name</u>	<u>First Name</u>	<u>Grade</u>	<u>Team</u>	<u>Topic</u>	<u>Room</u>
Gera	Atul	11		Menger's Sponge	BR28
Kim	Minjee	11		Freemish Crate	BR100
Kim	Ryan	11		The Pappus Chain	BR112
Smith	Russell	11		Peasent Multiplication Application	BR13
Song	Jaehyeon	11		Ford Fulkerson Algorithm	BR18
Taub	Allison	11		Fermats Last Theorem	BR111
Totala	Kreena	11		Generate Polygonal Numbers	BR16
Vathappallil	Pravin	11		Viviani's Curve	BR26
Berstein	Ross	12		Mobius Strip	BR200
<b>Lawrence HS</b>					
Bukhari	Syed Maja	9		Dandelin Spheres in Blood Spatter	MA20
Dagrin	Ileana	9		Napolean's Theorem	CHP117
De La O	Stefany	9		The Shape of Space	GAL18
Domanas	Gabrielle	9		Music Theory	L203
Lizama Palma	Stephany	9		Projectiles in Video Games	MA22
Michlig	Audrey	9		Math in Music	C306
Urgen	Ilia	9		Indirect Measurements & Similar Triangles	L201
Dookie	Kristen	12		The Effects of Time of Day and Tide Height on Nesting	BR202
Guha	Anoushka	12		Determining Molecular Weight	BR203
<b>Long Beach MS</b>					
Arengo	Rio	8		The Math Behind Bitcoin	A200
<b>Manhasset HS</b>					
Giannakopoulos	Despina	9		The Golden Ratio	GAL17
Hahn	Andrew	9		Moneyball: The Sabermetrics	L201
LoCurto	Jillian	9		Juggling Mathematics	MA20
Magas	Ante	9		The Perfect Free Throw	L211
Newman	Ashley	9		Magic Squares	L203
Vorillas	Peter	9		The Perfect Free Throw	MA22
Harragan	Emily	10		The Importance of Prime Numbers	N20
Pidherny	Kyria	10		The Mathematics Behind a Rainbow	R13
Kiley	Matthew	11		The Mathematics Behind the Expanding Universe	BR13
Park	Dohyeon	11		Nine-Point Circle	BR112
Ryan	Charlotte	11		Mathematics of Tic-Tac-Toe	BR15
Hanley	Eamon	12		Tau vs. Pi: The True Circle Constant	BR208
<b>North Shore Hebrew Acad HS</b>					
Hakakian	Alia	11		Mass Point Geometry	BR26
Schneck	Eden	12		Zika Study	BR206
<b>North Shore HS</b>					
Lamond	Olivia	9		An investigation of 5-con triangles and other $(2n - 1)$ -con	C332
Blumenthal	Sophie	10		Line reflections and associated rational functions	R102
Weber	Kelly	10		An equation for dilations	N16
Reilly	Esme	11		Trigonometric parallax	BR29
<b>North Shore MS</b>					
Lee	Noah	7		Game Theory	D16
Levin	Harrison	7		Rubik's Cube	D11

<b>Last Name</b>	<b>First Name</b>	<b>Grade</b>	<b>Team</b>	<b>Topic</b>	<b>Room</b>
<b>Northport HS</b>					
Slevin	Olivia	9		Matrices	CHP117
Connor	James	10		Computer Generated Cities	N15
Kavrakis	Valia	10		Probability	R13
Schuvart	Mckenzie	10		The Mobius Strip	N21
Borovikova	Sophia	11		Plane Patterns	BR16
Krantz	Teddy	11		Gerrymandering	BR29
Levanti	Danielle	11		The Challenges Associated with Modelling Linear	BR18
Mitard	Kyle	11		How Calculus Makes Things Easier	BR105
Penrose	Kevin	11		Code Breaking	BR13
<b>Oceanside HS</b>					
Visconti	Sarah	11		The Voting Theory	BR100
<b>Roslyn HS</b>					
Burns	Jared	9		Code Division Multiple Access	MA20
Christenson	Luke	9		Statistical Analysis	C306
Gross	Madison	9		Ailles Rectangle and Speical Triangles	L211
Guillon	Luca	9		Shoelace Method	GAL13
Kessler	Ethan	9		Combinatorics	C306
Kim	Yeji	9		Recursive	GAL17
Kuturoff	Benjamin	9		Probability of Hitting the Bullseye in Darts	C332
Kwon	Madison	9		Perspective	CHP117
Levine	Bennett	9		Inscribed Shapes	L203
Lind	Liam	9		Statistics in the Classroom	GAL18
Litvack	Ian	9		Combinatorics	GAL17
Mazarin	Ashley	9		Math Behind Animations	CHP117
McNair	Laura	9		Physics of Badminton	GAL16
Milholland	Aidan	9		Math in Art	L203
Nercessian	Olivia	9		Newtons Method	MA22
Rice	Michael	9		30 Vector Planes Utilized in Physics	L201
Sehgal	Harshita	9		Playing Card Combinatorics	MA20
Shah	Mahi	9		Inscribed Figures	GAL14
Stam	Rylie	9		Probability	L211
Sung	Emily	9		Music in Math	L201
Tofafarosh	Ammar	9		Math Behind Cryptocurrency	GAL18
Valauri	Sophia	9		Musical Tuning Systems	GAL13
Mayourian	Jacob	10		Probability and Strategies in Darts	R108
Weisman	Sydney	10		Hypotrachoids	R15
<b>Roslyn MS</b>					
Goodman	Cole	7		Sabermetrics	D101
Gross	Jacob	7		Matrices	D11
Lee	Jacob	7		Math of Origami	D17
Lee	ZeJane	7		Trigonometry	D101
Shen	Cayden	7		Math Behind a Tennis Serve	D102
Winston	Michael	7		Fractals	D16

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Yeh	Stephanie	7		Math in Animations	D14
Youn	Hanah	7		Math in Music	D14
Zwerling	Jacob	7		Bayes Theorem	D16
Bogatryyova	Masha	8		Fractals	HE101
Fasanello	Robert	8		Exterior Angle Theorem	W204
Fliegler	Matthew	8		How Pilots use Trigonometry to Fly planes	W100A
Garmise	Eliza	8		Math & Rollercoasters	ME10A
Gerber	Harry	8		Geometry	A200
Lam	Kristi	8		Math in Finance	ME10B
Lee	Christian	8		The Binomial Theorem	ME10A
Liswood	Amanda	8		The Mathematics of the Flu	ME10B
Mashkevich	Lemuel	8		Special Triangles	W100B
Schwartz	Mac	8		Limits and Derivatives	W100B
Sen	Shirmoyee	8		Visualizing Math through Geospatial Technology	HE101
Shih	Wayne	8		Pyramids	A109
Sinha	Arya	8		Magic Hexagons	HE100
Weisman	Sophie	8		Objects Viewed in the Front Window of a Car	W204
Berger	Jaiden	8	Team A	Game Theory	D104
Nabavian	Dina	8	Team A	Game Theory	D104
Schwartz	Lior	8	Team A	Game Theory	D104
Kahn	Jesse	8	Team B	Rubic's Cube	SC218
Rice	Joseph	8	Team B	Rubic's Cube	SC218
<b>Schreiber HS</b>					
Christake	Phoebe	10		Analyzing the Kip Movement	R108
Hay	Zachary	10		Environmental Impact of Electronic Cars in different	R13
Kessler	Ryan	10		Analyzing the Rates of Depression	N20
Loewy	Noah	10		Fuel-Efficient Vehicles	N18
Parekh	Rajen	10		Developing MLB Spending Strategies	R15
Ruskin	Daniel	10		Analyzing the Factors of Tommy John Surgery	R110
Schor	Dylan	10		Movie Industry Trends	N21
Senders	Nathaniel	10		Analyzing the Spread of Hemophilia	N13
Sung	Jeffrey	10		Microtransactions	R102
Fried	Harrison	11		Applied Statistics	BR13
Helman	Benjamin	11		Physics	BR15
Hirschwerk	Sally	11		Applied Statistics	BR25
Levin	Jamie	11		Logistic Regression	BR103
O'Neill	Ashley	11		Data Analysis	BR18
Ren	Jeannie	11		Inside the Black Box: Topological Memorization and	BR16
Shroff	Maansi	11		Educational Debt	BR26
Fain	Jacob	12		Applied Statistics	BR209
Levin	Emma	12		Mathematical Modeling	BR211
Romanski	Lucas	12		Linear Alegbra	BR200

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<b>South Woods MS</b>					
Aaronson	Avery	7	Team A	Math in Music	SC142
Lebolt	Molly	7	Team A	Math in Music	SC142
Aaronson	Chase	7	Team B	Pi	SC141
Lebolt	Jesse	7	Team B	Pi	SC141
Hamid	Alliyah	7	Team C	Golden Ration	SC141
Nayak	Anika	7	Team C	Golden Ration	SC141
Dadi	Shivane	8		General Relativity	HE100
Dapice	Kyle	8		Math in Computer Science	W100B
Fan	Darius	8		Graphics in Video Games	W100A
<b>Stimson MS</b>					
Campo	Rosalia	7		Fibonacci Numbers	D17
Slansky	Grayson	8		Math in Weather	HE101
Sobina	Nathaniel	8		Math in Roulette	W100A
Villella	JT	8		Does Screen Time Affect G.P.A.	W204
<b>Syosset HS</b>					
Chang	Wonjoon	10		The Monty Hall Problem	N21
Chu	Michael	10		Business	R108
Gangat	Nadeem	10		Mathematical Finance	N16
Kopacz	Michael	10		Geometry	R111
Li	Kevin	10		The Coin Change Program	N13
Rasquinha	Giselle	10		Modeling the Spread of Disease	R15
Yun	Joshua	10		Ternary Optical Computing	R102
Elenowitz	Joshua	11		Corporate Valuatron	BR100
Gangat	Azim	11		Mathematical Finance	BR111
Inteti	Sathvik	11		Computer Science	BR28
Jang	Sophia	11		Vectors	BR20
Luo	Yan	11		Economics and Game Theory	BR29
Mastandrea	Nicholas	11		BCS Theory	BR105
Mittal	Arushi	11		Mathematical Modeling	BR13
Zhao	Lingfei	11		Nonparametric Function Approximation	BR112
Lam	Thomas	12		The Number Rotation Puzzle	BR202
<b>Thompson MS</b>					
Guo	Jordan	7		Big-O Notation	D101
Hon	Griffin	7		A Random Walk	D17
Hon	Lawrence	7		Data and Statistics	D16
Li	Katherine	7		Pascal's Triangle	D101
Mehta	Ria	7		Graph Theory	D102
Mittal	Anish	7		Game Theory	D17
Tooley	Arya	7		Fibonacci Sequence	D14
Wang	Ethan	7		Pascal's Triangle	D11
Yu	Michael	7		Binary System	D16
Rishi	Anoushka	8		Binary Systems	HE101
Zhang	Amanda	8		Probability with Combinations and Permutations	ME10B
Zhuo	Ella	8		Traetenberg Speed System	ME10A

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<b>West Hollow MS</b>					
Ponnusamy	Niyanth	7		Matrix Algebra	D11
Shah	Rhea	7		Sequences & Series	D102
Joseph	Aidan	7	Team A	Stock Market	SC141
Patel	Sachin	7	Team A	Stock Market	SC141
Roberts	Justin	7	Team A	Stock Market	SC141
Bernstein	Kaitlyn	7	Team C	Mobius Strip	SC141
Selizhuk	Stasya	7	Team C	Mobius Strip	SC141
Ganesan	Gayathri	7	Team D	Trachtenberg Speed System	SC142
Mody	Khushi	7	Team D	Trachtenberg Speed System	SC142
Senthilkumar	Shruthika	7	Team D	Trachtenberg Speed System	SC142
Lerebours	Laura	7	Team E	Cryptology	SC142
Rimpel	Justin	7	Team E	Cryptology	SC142
Leshnower	Jacob	8		How Mathematics Solved Music's Temperament Problem	W100A
Peskin	Ryan	8		What is the Probability of an NFL team making the Super	A109
Rudes	Ryan	8		Estimating the Age of the Universe	ME10B
Wang	Alice	8		A New Set of Axioms for Euclidean Geometry	A200
Wu	Jason	8		Area Under the Curve	ME10A
<b>Wheatley School</b>					
Gulati	Shrey	9		Magic Squares	GAL18
Pahuja	Armaan	9		Chaos Theory and its effects on Meterological Predictions	MA20
Prajapati	Krittika	9		Binary Numbers	GAL14
Wong	Justin	9		THE INFLUENCE OF REPLACING PRIME NUMBERS IN	GAL16
Bansal	Manav	10		Mathematical Models Utilizing Differential Equations to	N13
Chabria	Anya	10		The Applications of Mathematics in Literature	N21
Hassan	Sarah	10		Applying Linear Animation Using Mathematics	N16
Jayam	Viraj	10		Examining Functions Under Quasi-Stereographic	N20
Arbitljacoby	Alex	11		Calculating Atomic Radius	BR18
Belle	Alyssa	11		Preventing Motion Sickness in Virtual Reality	BR112
Ramos	Madison	11		Mathematical Modeling Neural Networks	BR103
Wong	Trenton	11		It's all about that Base: Three-Halves	BR25
Yagoda	Emily	11		Solving Rubik's Cube with Musical Chord Progressioons	BR105
Zacheriah	Aaron	11		Transfinite Numbers	BR26
Zhong	Sharon	11		Wind Resistance and Failure Analysis	BR16
Shukla	Manan	12		The Banach Tarski Paradox	BR203
Singh	Vedant	12		Using Optimization to Increase Efficiency	BR206
<b>Woodland MS</b>					
Pienkowski	Jakub	7		Blaise Pascal's Triangle	D17
<b>Woodmere MS</b>					
Rasheed	Ibrahim	8		Fibonacci Sequence History and How it is Used in Real Life	ME10B
Azemoun	Leeya	8	Team A	Math Behind Waves	SC218
Chavre	Hiral	8	Team A	Math Behind Waves	SC218