Nassau Preliminary Round Winners, March 9 2018

Bethpage High School

Maiti	Soham	11	Abstract Algebra/Group Theory

Clarke HS

Ahmed	Sanjana	10	Infinity
Panickssery	Arjun	10	Graph Theory

Cold Spring Harbor HS

Davis	Stephen	11	Trisecting An Angle

Copiague HS

Antosiak	Adam	9	Sexagesimal System
Bennett	Kiara	10	Theme Park Math

East Meadow HS

Chinnadurai	Nishanth	9	Basic Differentiation and Integration
Levy	Elizabeth	9	Real World Applications of Matrices
Caceres	Joaquin	10	Mathematics in Chess
Fong	Alyssa	10	Probability and Population Genetics
Froehlich	Vanessa	10	Arc length, volume and polar graphs
Kuruvilla	Alvin	10	Newton's Law of Cooling
Pandey	Ikshu	10	Catalan Numbers
Pienkowski	Mateusz	10	Math behind NYC stoplights and traffic
Cang cuesta	Christian	11	Golden Ratio and Art
Giles	Taylor	11	Identifying individuals Using Voice Analyzation

Elmont Memorial HS

Alexander	Chrsitopher	9	Non-Euclidean Geometry
Hooke	Keilia	9	Binomial Theorem
Adiele	Bethel	11	Taylor Series
Jean Michel	Myrna	11	Heron's Triangle

Garden City HS

Pappas	Sydeny	9	Sudoku/Shapedoku
Liberopoulos	Jessica	10	Math behind Lacrosse
MCDonald	Dylan	10	Brachistochrone Problem
Zheng	James	10	The Birthday Paradox
McGannon	Christian	11	Determination of Pitching Velocity
Reifler	Thomas	11	Math in Gambling

Great Neck North HS

Fine	Aliza	9	Unveiling the Variables of Video Virality
Gruber	Danielle	9	How do Catenary Parameters affect the Taylor Series approximation?
Rothbaum	Joshua	11	Who's on Top?: Linear Algebraic Approach to Tournament Seeding

Herricks HS

Koe	Justin	9	Game Theory
Lakshmanan	Haritha	9	Non-Euclidean Geometry
Rasheed	Arfan	9	Curved Lines
Vinod	Arpitha	9	Codes and Ciphers
Chen	Derek	10	Set Theory
Hsu	Carrie	10	Graph Theory: Cage Graphs

Patel	Uttsav	11		The Creation of Epidemiological Models via Calculus
Soni	Hita	11		Matrices in Cryptography

Herricks MS

Jalwan	Ashish	7		Sequences and Series
Jha	Ankita	7		Probability of genetics
Lau	Carolyn	7		Golden Ratios
Lee	Jeylin	7		Sierpinski Triangle
Mendez	Alexa	7		Cell Phone Usage
Nabi	Sanyah	7		Pythagorean Theorem
Saini	Rushil	7		Wave Functions
Soni	Tanush	7		Math and Music
Tan	Liam	7		Parabolas
Abraham	Priya	8		Projectile Motion and Basketball
Balasubramanian	Aadithyaa	8		Fibonacci Numbers
Goel	Aanya	8		Matrices
Kang	Genesis	8		Golden Rectangle
Khondkar	Wafiq	8		Differential Calculus
Kong	Stanley	8		Kepler's Laws
Menrinetsang	Tenzin	8		Platonic Solids
Min	Esther	8		Matrices and Determinants
Mujtaba	Moniza	8		Genetics and Probability
Sohn	Kayla	8		Hex Codes
Soni	Keneil	8		Math in Music
Zovko	Chris	8		Abucus & Computer Abucus

Hicksville Schools

Zhen	Sam	8	Team A	Aeronautics and Aerodynamics
Zhen	Sean	8	Team A	Aeronautics and Aerodynamics
Kohli	Jaskaran	8	Team B	Pascal's Triangle
Singh	Ekum	8	Team B	Pascal's Triangle
Anugu	Adith	9		The Math Behind The Rubik's Cube
Singh	Navpreet	9		Euler's Identity
Sivasnkaran	Dhanush	10		Probability in Bingo
Agarwal	Rohil	11		Four-dimensional geometry
Lewkowicz	Michal	11		The Mathematics of Neural Networks
Patel	Ohm	11		Infinite Series
Shah	Asghar	11		Magnetic Resonance Imaging (MRI)
Varghese	Daniel	11		Predicate Logic

Holy Trinity HS

Mathew	Thomas	9		Pascal's Triangle
Saini	Yash	9		Catalan Numbers
Antropov	William	10		Cryptography
Patterson	Jaiden	10		The Rubik's Cube
Schocken	Sela	10		Probability Theory
Shebar	Alyssa	10		Infinite Series
Sullivan	Emily	10		Math and Tessellations
Bilello	Katelin Ann	11		Nonlinear Dynamics and Chaotic Butterflies

ICPS

Gupta	Arjun	10	Heron's Formula
Kengari	Pranav	10	Goldbach Conjecture
Patel	Anushka	10	Area Formula
Wong	Trenton	10	Approximating Pi
Zachariah	Aaron	10	Ptolemy's Theorem

Jericho HS

Kim	Catherine	9	The Mathematics Behind Autonomous Vehciles
Chang	Logan	10	How Group Theory can be Used to Find Invalid Rubiks Cube Permutations
Jiang	Haoren	10	The Missing 8 (12345679)
Li	Hongyi (Miles)	10	Calculating Probability Using Function of Area
Wang	Zipeng (Richard)	10	A Consideration of Banach Tarski Paradox Regarding Other Classic Geometric
Weinberger	Brian	10	Using Pascal's Triangle to Factor High Degree Polynomials
Chen	Zhuolin	11	Deriving an Algorithm for Constructing an Election Based on a Vote Matrix
Lipman	Asher	11	Group Manipulations of the Gale-Shapely College Admissions Problem
Malik	Hamza	11	Reinterpretation of the Josephus Problem
Shekar	Shruthi	11	Data Mining: Derivation and Application of an Intricate Algorithm
Singh	Japeshwar	11	Cell Phone Usage and its Effect on the Grades of High School Students

Kennedy HS POB

Varghese	Eshwin	10	Using Droz-Farny Line Theorem to Create Droz-Farny Circles
Bhasin	Saurav	11	Derivatives
Bloom	Ethan	11	Using Probability and Mendel's Laws to Predict the Inheritance of Cystic Fibrosis
Brandenstein	Julia	11	Utilization of Mathematical Models to Maximize Cancer Drug Effectiveness on
Ferretti	Zachary	11	Statistical Prediction of Seismological Trends Using Julia and Fatou Sets
Girsky	Avery	11	Applications of Derivatives: Newton's and Raphson's Method Explained Through
Goldstein	Jessica	11	An Investigation of the Homotopy Between Roman Surface and Boy Surface
Huang	Princeton	11	An Analysis of Car Buying Strategies
Indek	Mitchell	11	Using Kepler's Laws to Investigate the Possibility of a Trans-Neptunian Planet
Kyriacou	Harrison	11	Computer Simulation
Liner	Sean	11	An Application of the Queens Problem in Defining Strategic Military Aircraft
Philip	Stefan	11	Investigation of the Use of Hamming Distancesto Detect and Analyze Encryted
Tivakaran	Eshan	11	Application of Levels to Prove Angle Bisector Theorem, Ceva's Theorem &

Kennedy MS Bethpage

Bhatia	Aurrel	8		A Mathematical Approach to Predicting Movie Revenues using Machine Learning
Thulasidas	Theresa	8		Gothic Architecture
Channapatna	Ruchitha	8	Team A	Playing with Probability
Channapatna	Suchitha	8	Team A	Playing with Probability

Lawrence HS

Gonzalez	Meivelin	9	Mathematics and Music
Melgar	Angie	9	Spidrons
Chen	John	11	Determining the Molecular Weight of Polystyrene

Lawrence MS

Dagrin	Ileana	8	The Binomial Theorem

Long Beach MS

Arengo	Rio	7	Pascal's Triangle

Lynbrook HS

Hausknecht	Kaylie	11		Integer Chebyshev Polynomials

Manhasset Secondary School

Beil	Mackenzie	9		The Hidden Beauty of Multiplication Tables
Gauld	Kevin	10		Hashes and Cryptocurrency
Hill	Megan	10		The "Magic" of Magic Squares
Orthos	Kayla	10		Game Theory
Park	Dohyeon	10		Game Theory
Ryan	Charlotte	10		The Mathematics of Network Traffic
Zhang	Rendie	10		Knot Theory
Khatoria	Sidhanth	11		Surreal Numbers
Mondiello	Caroline	11		Matrix Representations of Edge Graphs

North Shore Hebrew Academy

Applebaum	Jack Henry	9		Game Theory
Basaleli	Benjamin	11		Boat Stability

North Shore HS

Blumenthal	Sophie	9		The Inscribed and Escribed Circle of a Right Triangle
Efstathiadas	Christina	9		Geometric Transformations in the Coordinate Plane
Hunt	Katherine	10		The Discounted Cash Flow Valuation
Lavenda	Louis	10		Conic Sections
Reilly	Esme	10		The Continuum Hypothesis
Leventhal	Hanah	11		Formulas Involved in the Motion of an Arrow

North Shore MS

Buschfrers	Matias	7		Patterns and Sequences
Fleming	Michael	7		Coding and Binery Code
Rush	Rebecca	7		Magic Squares
Frangopoulos	Angelica	7	Team A	Math in Roller Coasters
Nochowitz	Matthew	7	Team A	Math in Roller Coasters
Borom	Brandon	8		Fractals
Ditrano	Katie	8		Math in Music
McCreery	Evelyn	8		The Four Color Theorem

Northport MS

Meadows	Zoe	7		Pascal's Triangle

Oceanside HS

Visconti	Sarah	10		The Four Color Theorem
Haertig	Vanessa	11		Acing a Serve in Tennis Using Physics
James	Danielle	11		The Math in Art

Oyster Bay HS

Hom	Jason	11		Trachtenberg Speed System

Roslyn HS

Chu	Laura	9		The flow with tennis rankings
Fein	Hannah	9		Math and Marching band
Garmise	Hannah	9		Math is going viral
Kumar	Chelsea	9		Sine and Cosine waves
Lam	Katie	9		The mathematics of equestial?
Lee	Faith	9		Speed of a softball pitch

Lok	Sara	9		The perfect lob
Mashkevich	Joselle	9		Math in tennis serves
Matarangas	Ariana	9		The mathematics of the perfect three point shot
Weiss	Luke	9		Golden ratio in art and architecture
Weissman	Sydney	9		The math of pottery
Zarrini	Yael	9		Unsolved Problem How to fit one triangle inside another
Zucker	Jordon	9		Triangluar Numbers

Roslyn MS

Fasanello	Robert	7		Random numbers
Lam	Kristi	7		Where math meets music
Mashkevich	Lemmy	7		Herons shortest distance problem
Nguyen	Emelie	7		Trig
Sinha	Arya	7		The golden ratio
Anscher	Emma	8		The monty hall problem
Christenson	Luke	8		Cavalieri's principal
Corey	Dani	8		Tessellations
Fein	Brooke	8		Math in Music
Grewal	Jaideep	8		Clock Angles
Guillon	Luca	8		Area of a regular polygon w/ n sides
Hoffman	Jake	8		Angle of incidence
Levine	Bennett	8		Conic sections
Lind	Liam	8		bayes Theorem
Lui	Daniel	8		3d vector paper
Mazarin	Ashley	8		High Frequency Trading
Nercessian	Olivia	8		Riemann Sum
Rice	Mikey	8		The uses of trig in areospace engineering
Sehgal	Harshita	8		Calculating the sides of the largest equilateral triangle that can be inscribed within
Valauri	Sophia	8		Imaginary numbers
Xu	William	8		The relationship between the incinde and circumcinde of regualr Polygons
Youn	Hailee	8		Calculating the quality of squares and rectangles within an NxN and a MxN grid
Chandra	Sonia	8	Team A	Fractals
Stam	Rylie	8	Team A	Fractals
Litvack	Ian	8	Team B	Eulers paths and circuits
Schwartz	Mac	8	Team B	Eulers paths and circuits
Berlent	Dylan	8	Team C	Cryptology
Burnt	Jared	8	Team C	Cryptology
Kessler	Ethan	8	Team D	Game theory
Milholland	Aidan	8	Team D	Game theory

Schreiber HS

Fried	Harrison	10		Data Analysis
Guo	Tiffany	10		Atmospheric Statistics
Helman	Benjamin	10		Physics and Data Analysis
Kobayashi	Wakato	10		Data Analysis
Muratore	Julia	10		Statistics and Data Analysis
O'Neill	Ashley	10		Mathematical Modeling
Ren	Jeannie	10		Machine Learning

Rosaya	Sabine	10		Statistics and Data Analysis
Shroff	Maansi	10		Data Analysis
White	Julian	10		Statistics
Fain	Jacob	11		Statistics and Data Analysis
Gruber	Zachary	11		Biomedical Devices
Kapoor	Nicolas	11		Semiconductors
Leong	Maya	11		Statistics
Levin	Emma	11		Mathematical Modeling
Melkonian	Joseph	11		Game Theory
Romanski	Lucas	11		Linear Algebra
Shields	Carter	11		Data Analysis
Smith	Hannah	11		Data Analysis

South Woods MS

Dadi	Shivane	7		Magic Sqaures
Dapice	Kyle	7		Math in Roller Coasters
Dunn	Willow	7		Genetics and Probability
Raghu	Ketan	7		Chaos Theory
Mepani	Aarian	7	Team A	Pascals Triangle
Mutyala	Ashok	7	Team A	Pascals Triangle
Lin	Rachel	7	Team B	Optical Illusions
Qian	Tiffany	7	Team B	Optical Illusions
Guo	Sabrina	8		Conic Sections
Wang	Alex	8		Zeno's paradox
Jung	Ashley	8	Team A	Photography
Shleimovich	Michele	8	Team A	Photography
Desai	Siddarth	8	Team C	Math in Sports: Golf
Park	Anthony	8	Team C	Math in Sports: Golf

Syosset HS

Chu	Michael	9		Proofs in Number Theory
Dapice	Jennie	9		Fair Division
Li	Kevin Y	9		Change Making Problem
Rasquinha	Giselle	9		Mathematics of Voting
Elenowitz	Joshua	10		Stock Market
Luo	Yan	10		Sleep-Wake Cycle
Mastandrea	Nicholas T	10		BCS Theory
Mittal	Arushi	10		Fractals Geometry
Zhao	Lingfei	10		Genetic Algorithms
Hsu	Allison L	11		Computer Image Analysis
Lam	Thomas	11		Lights Out Puzzle
Younus	Suhail	11		Cryptography

The Wheatley School

Bansal	Manav	9		Taylor, Power and Geometric Series
Chabria	Anya	9		Fractal Geometry: The Mathematics uniting the Universe
Ness	Eric	9		System of Numerations through Histroy
Ramos	Madison	10		The Mathematics Behind Magic
Shah	Diya	10		Boolean Algebra

Yagoda	Emily	10		The Math Behind Bitcoin and Cryptocurrencies
Zhong	Sharon	10		Foundation / Support Mathematics
Singh	Vedant	11		Using Optimization to Increase Production Efficiency

Thompson MS

Hon	Griffin	7		Stastics and the Stock Market
Mehta	Ria	7		Mobius Strip
Su	Emily	7		Magic Squares
Chaudri	Sophia	7	Team C	Golden Ratio
Rishi	Anoushka	7	Team C	Golden Ratio
Jain	Aryan	8		Pascal' Geometry

Woodland MS

Jojode	Sachin	8		Binary Numbers

Woodmere MS

Pathiranage	Sasiru	8		Cryptography