MATHCOUNTS® Spring Newsletter

www.mathcounts.org

Vol. 36 Issue 2

Edward Wan Crowned National Champion at 2016 Raytheon MATHCOUNTS National Competition



Above: 2016 National Champion Edward Wan with Bhupinder Singh, Chair of the MATHCOUNTS Board of Directors (left) and Washington State Coach Bin Lan. Below: Wan during the Countdown Round.



To say that Edward Wan won the MATHCOUNTS Competition Series in some ways feels like an understatement. He won as a seventh grader, making him one of only a handful of national champions not in eighth grade—and the first since 2008. He was the Written Competition Champion in addition to the National Champion, making him only the third Mathlete[®] in the past 10 years to win both competitions.

Even rarer still, Edward scored a 46—a perfect score on the Written Competition. Any Mathlete or teacher who has participated or coached in MATHCOUNTS understands how exceptional this is. The complexity and difficulty of MATHCOUNTS problems is taken as such a given that the Official Rules and Procedures of the Competition Series include this explanation:

MATHCOUNTS Competition Series scores do not conform to traditional grading scales. Coaches and students should view an Individual Score of 23 (out of a possible 46) as highly commendable.

Given this list of rare achievements, many would assume Edward is simply a prodigy, someone whose talent in mathematics is purely natural. But what makes Edward even more exceptional is this: *he did not qualify for the MATHCOUNTS National Competition last year.* A Mathlete, who less than a month ago received a perfect score on arguably one of the most challenging MATHCOUNTS tests ever written, was defeated at the Washington State Competition last year. In fact, when interviewed for a blog post by Microsoft, Edward summed up his achievement this year, compared to last year, with a simple adage: "Practice makes perfect."

That Edward practiced and worked very hard for his achievement is a point that is probably not highlighted

enough in science, technology, engineering and mathematics (STEM) programs. Many people continue to view talent in STEM as something that we are born with, or born without. But the truth is, brilliant students like Edward cultivate their brilliance through effort, persistence and yes, failure. But when these students inevitably make a mistake—whether at the nation's most prestigious math competition or on a routine test at school—they rethink their strategies, learn from their errors and keep trying. Practice makes perfect. It is also what makes a national champion.

Edward Wan received a total of \$22,500 in scholarships, including the \$20,000 Donald G. Weinert College Scholarship, and a trip to U.S. Space Camp. A student at Lakeside Middle School in Seattle, Wan is the third Mathlete from Washington to be National Champion. He answered the winning question in just 6.95 seconds:

What is the remainder when 999,999,999 is divided by 32? (Answer: 31)

Wan was joined by 223 students from across the nation who competed at the <u>2016 Raytheon</u> <u>MATHCOUNTS National Competition</u> on May 8–9 at the Renaissance Washington, D.C. Downtown Hotel. National competitors represented all 50 states, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, the Department of Defense and State Department.



One of the nation's most challenging math competitions, the 2016 National Competition began with a series of written exams on Sunday, May 8, requiring students to work both individually and collaboratively as part of their four-person state teams. On Monday, May 9, the 12 Mathletes with the highest scores on the Written Competition advanced to the Countdown Round, a fast-paced contest with one-on-one match-ups. Countdown Round participants must solve



a series of difficult math problems, each in 45 seconds or less.

Rankings for the Countdown Round were determined by the students' scores on the previous day's Written Competition. The four individuals with the highest written scores-who received a bye in the first round of the Countdown Round—were Wan; Luke Robitaille, a sixth grader from Euless, Texas; Jason Liu, an eighth grader from Reno, Nev.; and Benjamin Wright, an eighth grader from Sugar Land, Texas.

From left: Jason Liu of Nevada, Luke Robitaille of Texas, Andrew Cai of Texas (in front) and Wan at the Countdown Round.

The two semifinalists were Liu and Ben Kang, an eighth grader from Falls Church, Va. The Countdown Round Runner-Up was Robitaille, who was also the Written Competition Runner-Up. Having two of the youngest Mathletes at the event in the final match-up was not lost on Countdown Round moderator Lou DiGioia: "Pretty remarkable! We have a seventh grader versus a sixth grader, so you know...no matter who wins this year, you'll just come back next year and try it again, all right?" It is safe to say that the 2017 Competition Series, and maybe even the 2017 Raytheon MATHCOUNTS National Competition, will have some familiar faces.

After winning the title of 2016 National Champion, Wan went on a media tour that included an appearance on *Live!* with Kelly and Michael, where he competed against hosts Kelly Ripa and Michael Strahan in a live math competition. The 2016 National Competition was featured on <u>WUSA9-TV's Great Day Washington</u> segment, and was also covered by multiple news outlets, including <u>Education Week</u>, <u>The Seattle Times</u>, <u>Deadspin</u> and <u>Microsoft On the Issues</u>.

2016 NATIONAL COMPETITION WINNERS

NATIONAL CHAMPION: Edward Wan, WA

- \$20,000 Donald G. Weinert Scholarship
- Trip to U.S. Space Camp

COUNTDOWN ROUND RUNNER-UP:

Luke Robitaille, TX

\$7,500 Scholarship

COUNTDOWN ROUND SEMIFINALISTS: Jason Liu, NV Ben Kang, VA • \$3,000 Scholarship each

WRITTEN COMPETITION CHAMPION: Edward Wan, WA

\$2,500 Scholarship

1ST PLACE TEAM: Texas Andrew Cai, Luke Robitaille, Benjamin Wright, Justin Yu

- \$2,000 Scholarship each
- Trip to U.S. Space Camp

WRITTEN COMPETITION RUNNER-UP: Luke Robitaille, TX

COUNTDOWN ROUND QUARTERFINALISTS: Benjamin Wright, TX Brian Liu, NJ Alex Xu, MI Andrew Cai, TX

COUNTDOWN ROUND PARTICIPANTS: Alex Wei, WA Justin Yu, TX Eric Wei, NY Wentinn Liao, CA

2ND PLACE TEAM: California

3RD PLACE TEAM: Washington

Texas Wins Team Competition, Makes Countdown Round History

The team from Texas, under the leadership of Coach Isil Nal, took First Place in the Team Competition, and made MATHCOUNTS history with two new records! *All four* Texas team members were in the top 12 and participated in the Countdown Round—a first at the MATHCOUNTS National Competition. Texas was also the first team to have *two sixth-grade students* qualify for the Countdown Round.



From left: Cai, Benjamin Wright, Justin Yu, Robitaille, Texas Team Coach Isil Nal and Singh.

Team members Andrew Cai, a sixth-grade student from Sugar Land; Robitaille; Wright; and Justin Yu, an eighth-grade student from Richardson, stood out at the National Competition not only for their talent, but also for their team spirit and camaraderie. Despite competing against each other onstage during the Countdown Round, all four Mathletes were cheering for each other and their fellow competitors.

Each member of the Texas Team won a \$2,000 scholarship and a trip to U.S. Space Camp. The team from California won Second Place, with team members Nevin Liang, from Saratoga; Wentinn Liao, from Tracy; Brent Liu, from Fremont; and Ishika Shah, from Cupertino (all eighth graders). The Washington Team won Third Place, with team members eighth grader George Lan; eighth grader Axel Li; Wan; and seventh grader Alex Wei (all from Bellevue).

Celebrating Spirit at the National Competition

Spirit and sportsmanship were abundant at this year's National Competition. From students trading pins, to Countdown Round participants high-fiving and applauding each other—even after losing a match-up—the 2016 Mathletes exemplified the spirit of teamwork and community. The Puerto Rico team won the 2016 Spirit Award, which is awarded to the team that best-demonstrates a positive attitude and support for fellow Mathletes. Team members Carlos Alvarado, Javier Mulero, Nico Proskauer Valerio and Osva Quiñones, and Coach Nestor Santiago each received a commemorative pin in recognition of their award.

MATHCOUNTS congratulates all 224 national competitors for advancing to the national level. This is a remarkable accomplishment and every Mathlete who participated at the event in Washington, D.C. should be incredibly proud of his or her success. The MATHCOUNTS National Competition results, as well as links to event photographs and the archived webcast on ESPN3 is available at <u>www.mathcounts.org/nationalcompetition</u>.



Georgia won the Most Improved Award. From left: Holden Watson, Lawrence Zhou, Anup Bottu, Johnny Fang and Coach Sema Duzyol.



From left: Javier Mulero, Nico Proskauer Valerio, Carlos Alvarado, Osva Quiñones and Coach Nestor Santiago were presented the Spirit Stick.





Singh and Pam Erickson, Vice President of Corporate Affairs at Raytheon, present plaques to Three-Time National Competitors, from left: Eric Wei of New York, Divyesh Gurnani of the Virgin Islands, Sruthi Parthasarathi of Ohio, Allen Wu of North Dakota, Edward Hu of Mississippi, Ragulan Sivakumar of Vermont, Kelvin Kang of Arkansas and James Hawkes of Maine.

Above: Grand Prize Winners Club Leader Michael McFadden, Noemi Campbell, Drake Johnson, Grace Sistrunk and Max LeFevre are presented their Gold Level banner. Below: Jessica Pei runs in for the Countdown Round.



"#MarbleChallenge" by Team GLU3 from Georgia Voted First Place Video at 2016 Math Video Challenge Finals



GLU3 from Georgia won the 2016 Math Video Challenge with their video, "<u>#MarbleChallenge</u>." Filmmakers Aaliyah Brown of Jonesboro, Jadon Edwards of Powder Springs, MacKenzy Jordan of Covington and Kennedy Spencer of Way Fairburn (all eighth graders), each received a \$1,000 college scholarship. Team Ad-

visor Camille Jones of the Ron Clark Academy in Atlanta, has led three teams now to a First Place win in the program.

"#MarbleChallenge" is a story of two students, Jadon and Kennedy (playing themselves), who decide to try out a new game called the #MarbleChallenge, after seeing a GLUTube video starring Internet sensations KittenGal24 (MacKenzy) and GalaxyGalore (Aailyah). The students drew their inspiration for "#MarbleChallenge" from the Broadway musical *Hamilton* and made their entire video a musical, using imaginative lyrics, jokes and rhymes to craft their story. One refrain in the video, for example, features **KittenGal24** setting up the winning game strategy for **Jadon**:



What's up-it's me KittenGal24! With my help, we'll beat GalaxyGalore. First, what relation do 1, 4 and 2, 3 have? The sum is both 5? Yes, you're on the right path! Five is the magic number to control the game. Do you now understand? No, not really, please explain. One is the lowest number that you can choose. Four is the highest. Now I've got a clue! One and four put together sums 5. Two and three do the same—don't deny it.



From left, Singh, Kennedy Spencer, MacKenzy Jordan, Aaliyah Brown, Jadon Edwards, Team Advisor Camille Jones and Erickson at the Awards Ceremony and Banquet.

The video solved problem #78 from the <u>2015-</u> <u>2016 MATHCOUNTS School Handbook</u>: Jadon and Kennedy are playing a game with a bowl containing 39 marbles. Each player takes turns removing 1, 2, 3 or 4 marbles from the bowl. The person who removes the last marble loses. If Jadon takes the first turn to start the game, how many marbles should he remove to guarantee he is the winner?

"#MarbleChallenge" was one of <u>four finalist videos presented</u> at the 2016 Math Video Challenge Finals, which took place on Monday, May 9 at the Renaissance Washington, D.C. Downtown Hotel. Finalists presented their videos to the 224 Competition Series national competitors at the event, who then voted to determine the winning video.

2016 MATH VIDEO CHALLENGE FINALISTS

"BACK IN THE GOOD OLD DAYS" BY THE MATHTASTIC 4, OHIO Kellie Keaton, Shadarria Robinson, Anaya Spencer, Jayla VanHorn + Team Advisor Stacy Ans-Duffy

"THE GREATEST PIZZA" BY MAPLE LAKE HOMESCHOOL MOVIE CLUB, PENNSYLVANIA Louise Grabow, Eleanor Haines, Bruce Haines, Andrew Rucks + Team Advisor Jennifer Grabow

"LAURIE'S COINS" BY THE CREATIVE TEAM NAME, ILLINOIS Amelia Jensen, Ela Kusmierz, Lauren Pokonosky, Sydney Williams + Team Advisor Jeanne Salazar

MATHCOUNTS, University of Oklahoma, Art of Problem Solving Offer Competition Math Online Course for the Summer

The online course, Competition Math for Middle School, is back by popular demand and will be offered from June 6



through August 12, 2016. The course, led by Professor Stacey Reeder of the University of Oklahoma, features content developed by Art of Problem Solving, plus tips and strategies from national-level MATHCOUNTS coaches.

More than 200 MATHCOUNTS coaches and math teachers took the course that was offered in Fall 2015. Offering the course during the summer—before classroom teaching, coaching and team practices begin—will allow even more educators to participate. The

course is designed to be a resource for both new and returning coaches so they can get their MATHCOUNTS students ready for the 2016-2017 Competition Series.

More information is available at <u>mathcounts.ou.edu</u>. All participants who successfully complete the course this summer will receive one graduate credit from the University of Oklahoma, which can be used in most school districts for continuing education credit. Educators interested in taking this course should register online by June 6, 2016.

Jacob Wachspress Wins 2016 MATHCOUNTS Alumni Scholarship

2016 FINALISTS

Jeremy Du, MD Ina Flood, AK Adam Graunke, AZ Meghal Gupta, CA Trisha Hariani, GA Nithin Kannan, AZ Emma Kerwin, MA Sarah Koubek, NE **Michael Kural, CT** Hans Li, TX Celine Liang, CA Nancy Lu, PA **Tristan Pollner, CA** Shravan Ravishankar, KY Laura Seaberg, MD **Kelsey Sucher, KY Richmund Tan, CA** Megan Zhao, OH **Geoffrey Zhang, FL**



MATHCOUNTS created the Alumni Scholarship three years ago as a way to support students beyond middle school. This year's winner of the \$3,000 Alumni Scholarship was Jacob Wachspress of Yardley, Pennsylvania. Wachspress, a State Competitor from 2008-2011, was a finalist for the scholarship in 2015 and will attend Princeton University in the fall.

After his success as a middle school Mathlete, Wachspress went on to lead his high school's ARML team and volunteer at Boys and Girls Club of Trenton. After graduating from high school, he decided he wanted to do more to

give back before starting college, so he joined Princeton's Bridge Year Program.

Through the Bridge Year Program, Wachspress has spent the past year working as a math teacher for elementary, middle and high school students in Bolivia. He described the experience as transformative for him, writing, "What I can say for sure...is that I am not done sharing that rush of bliss that MATHCOUNTS brought to me. The 'how' may not yet be clear...but I know that the arc of my life will inevitably put me in positions to spread the incredible joy math can bring."

The application for the 2017 MATHCOUNTS Alumni Scholarship will be available in the fall. More information is available at <u>www.mathcounts.org/scholarship</u>.

THANK YOU! + THANK YOU! + THANK YOU! + THANK YOU!

MATHCOUNTS would not be able to make a difference in the lives of hundreds of thousands of students each year without the support of our individual and corporate donors. Together we can help all students find their path to math.

National Sponsors

- Raytheon Company
- Northrop Grumman Foundation
- U.S. Department of Defense
- National Society of Professional Engineers
- CNA Foundation
- Phillips 66
- Texas Instruments Incorporated
- 3Mgives
- Art of Problem Solving
- NextThought



2016 MATHCOUNTS National Competition Sponsor

Executive Sponsor

General Motors Foundation

Official Sponsors

- Bentley Systems Incorporated
- Brookhill Institute of Mathematics
- National Council of Examiners for Engineering and Surveying

Associate Sponsors

- Edward T. Bedford Foundation
- PricewaterhouseCoopers LLP

Founding Sponsors

- National Society of Professional Engineers
- National Council of Teachers of Mathematics
- **CNA** Foundation

Spotlight on State and Local Donors

We would like to express our gratitude to the generous donors at the state and local level whose support impacted thousands of students attending chapter and state competitions this year. They helped make the MATHCOUNTS Competitions Series a huge success!

<u>Alabama</u>

Raytheon

<u>Alaska</u>

Boutet Family Trust

<u>Arizona</u>

American Society of Civil Engineers – Southern Arizona Branch

<u>Arkansas</u>

Arkansas State Teachers Association Lewis Automotive Group of Northwest Arkansas University of Arkansas – Fayetteville, College of Engineering University of Arkansas at Little Rock, College of Engineering

California

California Baptist University, College of Engineering Chevron Google, Inc. Sam and Nancy Grossman Cliff and Becky Ishii KEYSIGHT Technologies Prof. Ram Kumar Memorial Foundation Stanford University, School of Engineering University of California, Irvine

Connecticut

Dominion Foundation Pfizer Worldwide Research & Development

<u>Florida</u>

Atlantic Self Storage Richard B. Bassett CSX Don and Jan Smally Family Foundation FIGG Engineering Florida Engineering Society Forest Chapter, Florida Engineering Society HDR Engineering, Inc. JEA Johnson & Johnson Vision Care Myakka Chapter, Florida Engineering Society Publix Super Market Charities, Inc. Shell Oil University of North Florida, College of Computing, Engineering and Construction W.W. Gay Mechanical Contractor, Inc.

<u>Georgia</u>

Darton State College Foundation Lockheed Martin Shell Oil

<u>Guam</u>

Environmental Chemical Corporation Society of American Military Engineers, Guam Post

<u>Hawaii</u>

Bowers + Kubota Covanta Hawaiian Electric Company

<u>Illinois</u>

North Suburban Chapter, Illinois Society of Professional Engineers Oakton Community College



From left: Math Video Challenge Finalists Jayla VanHorn, Anaya Spencer (at back) and Shadarria Robinson from the Mathtastic 4 Team dress up as characters from their video.

Indiana

Central Indiana Chapter, Indiana Society of Professional Engineers Eli Lilly and Company FedEx Indiana Society of Professional Engineers Johnson Controls Purdue Credut Union (PFECU)

Kentucky

Bluegrass Chapter, Kentucky Society of Professional Engineers
Louisville Community Foundation (for Zoeller Company)
Palmer Engineering Company
Society of American Military Engineers – Kentuckiana Post
Stantec Consulting Services
Strand Associates
Toyota Motor Manufacturing Kentucky

Massachusetts

Society of American Military Engineers – Boston Post

<u>Minnesota</u>

3Mgives Bolton & Menk Ecolab Foundation Great River Energy H.B. Fuller Minnesota Professional Engineers Foundation Schott Foundation Securian Foundation Xcel Energy

<u>Missouri</u>

Kansas City Power & Light Missouri Western State University Shamrad Metal Fabricators

<u>Nevada</u>

Microsoft

New Jersey

ANS Consulting Bergen County Community College Mercer County College New Jersey Institute of Technology Ocean County Community College Rowan University Rutgers University, Department of Mathematics Union County College

New York

D.E. Shaw & Co. Virginia Doty The Garbasz Family New York Chapter, New York Society of Professional Engineers Strata Marketing UBS

North Carolina

Duke Energy Foundation

<u>Ohio</u>

Toyota Manufacturing of North America University of Cincinnati Youngstown State University

<u>Oklahoma</u>

American Fidelity Foundation Diana and Steven Bittle ConocoPhillips Northrop Grumman Phillips 66 Project Management Group, LLC

Pennsylvania

Big Ideas Learning, LLC Erie Engineering Societies Council & IEEE Erie Chapter Gannon University Time Warner Cable Connect a Million Minds West Pharmaceutical Services, Inc.

South Carolina

Aiken Technical College Bridgestone Americas Tire Operations, Aiken Off Road Tire Plant Halocarbon Products Corporation MTU America, Inc. University of South Carolina, School of Engineering and Computing

South Dakota

3M Aberdeen

Tennessee

Knoxville Chapter, Tennessee Society of Professional Engineers Piedmont Natural Gas

<u>Texas</u>

3M Texas Bexar Chapter, Professional Engineers in Private Practice (PEPP) Bexar Chapter, Texas Society of Professional Engineers (TSPE) Calpine Corporation City of Laredo Crane Engineering Pape-Dawson Engineers, Inc. Raytheon St. Mary's University Shell Oil Sid Richardson Foundation Texas A&M International University Texas Education Agency **Texas Instruments** Texas Tech University, Edward E. Whitacre Jr. College of Engineering University of Texas at Austin, Cockrell School of Engineering

<u>Utah</u>

Prabha LLC Salt Lake Community College

Vermont

PC Construction

Washington

Microsoft Corporation

West Virginia

West Virginia Society of Professional Engineers

<u>Wisconsin</u>

3M Wisconsin Acuity University of Wisconsin–Madison, Department of Engineering Professional Development

Wyoming

Triple A Building Services





MATHCOUNTS® A place and a program for every student.



Everyone has a path to success in math.

Help ns make sure all children discover theirs.

mathcounts.org/donate

Follow + share + Join Us!



mathcountsfoundation