

23rd Bay Area Mathematical Olympiad

Scores and awards March 2, 2022

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### **1** Overview

Exactly 500 students took part in the 23rd BAMO on March 2, 2022, with 326 taking BAMO-8 and 174 taking BAMO-12. Over 100 schools were represented in over 30 different proctoring locations, including one at UCLA and another in the Seattle area.

Every BAMO (with the exception of 2020, due to the pandemic) has an awards ceremony take place a week or two after the exam, featuring a math talk by an exceptional speaker, followed by a brief presentation of awards. Prizes consist of T-shirts, electronic gift certificates for Powell's Bookstore, and Jamba Juice certificates for winning schools. This year's awards ceremony took place on Sunday, March 20, at Santa Clara University, and the speaker was Alon Amit of Intuit, who spoke about "The Changing Nature of Proof."

For more information about BAMO, please visit https://www.bamo.org.

#### **1.1 Score distributions**

Each problem was worth 7 points, so the maximum total score for each exam was 35 points. The median scores were 13 and 15 points, respectively, for BAMO-8 and BAMO-12. The first two tables show the score distribution for each problem, and the third table shows the rank corresponding to a given score. For example, in BAMO-8, 123 people scored above 15 points.

BAMO-8	А	В	C1	D2	E3
blank	7	40	22	93	131
0	6	7	16	53	93
1	26	67	24	52	38
2	36	76	26	13	20
3	29	13	60	36	11
4	25	13	106	16	4
5	43	8	19	21	2
6	41	32	7	22	16
7	113	70	46	20	11
median	5	2	4	2	1

BAMO-12	C1	D2	E3	4	5
blank	3	11	42	56	80
0	1	7	25	57	21
1	1	6	26	5	11
2	7	9	11	10	12
3	17	13	8	7	9
4	41	19	3	0	10
5	11	30	2	1	8
6	13	28	23	4	18
7	80	51	34	34	5
median	6	5	3	1	3

Score	5	10	15	20	25	30
BAMO-8 rank	292	197	124	79	44	7
BAMO-12 rank	156	124	86	50	31	16

# 2 Individual awards

Name	School	Score
Julia Xiang	Diablo Vista Middle School	35
Taras Abakumov	Stella Schola Middle School	34
Kailua Cheng	Pleasanton MS	34
Thomas Della Vigna	Prospect Sierra	34
Jonathan Du	Bullis Charter School	33
Kyle Wan	Proof School	31
Kieran Callahan	Synapse School	30
Amelia Chen	Proof School	30
Ryan Fu	Harvest Park MS	30
Vinci Ho	Edna Brewer Middle School	30
Ryan Lee	Fallon Middle School	30
Lily Shi	The Harker School	30
Julian Stockton	Proof School	30
Nicholas Weng	Proof School	30

### 2.1 BAMO-8, Scoring 30 or more points

### 2.2 BAMO-8, Honorable Mention (27–29 points)

Name	School		
Anju Aoi	Proof School		
Asher Ding	Harvest Park MS		
Kaison Fong	Davidson Academy Online		
Justin Fu	Fallon Middle School		
Rohan Garg	Harvest Park MS		
Minghao Guo	Portola Highly Gifted Magnet		
Rithwik Gupta	Horner Middle School		
Connor Huh	Proof School		
Neil Kolekar	Proof School		
Alena Kutsuk	Graham Middle School		
Helen Law	Greene Middle School		
Alexander Maresov	Tyee Middle School		
Daniel Nie	Harvest Park MS		
Ibrahim Piri	Los Angeles Center for Enriched Studies		
Caden Ruan	The Harker School		
Axel Szolusha	The Harker School		
Lorraine Wang	Basis Independent Silicon Valley		
Lucas Wang	Ellen Fletcher Middle School		
Bryant Wang	Valley Christian Jr High School		
Kallie Wang	The Harker School		
Graham Zhang	Proof School		

Name	School	Score
Linus Tang	Davidson Academy Online	35
Aarush Vailaya	The Harker School	35
Rohan Das	Basis Independent Silicon Valley	34
Kavan Doctor	Wilcox High School	34
Pico Gilman	Proof School	34
Alex Gu	Valley Christian High School	34
Sheldon Tan	MVHS	34
Alan Lee	Henry M. Gunn	33
Alex Tholen	The Nueva School	33
Alexander Zitzewitz	Proof School	33
Espen Slettnes	Stanford Online High School	32
Julian Xiao	Amador Valley High School	32
Sally Zhu	The Harker School	32

## 2.3 BAMO-12, Scoring 32 or more points

### 2.4 BAMO-12, Honorable Mention (25–31 points)

Name	School
William Chen	Mira Costa High
Hugh Cheng	Harvard-Westlake
August Deer	Geffen Academy
Natalie Deering	Homeschooled
Roger Fan	Henry M. Gunn
Ella Gal-on	Stanford OHS
Jackson Gish	Proof School
Jerry Guo	Henry M. Gunn
Anna Johnston	Proof School
Ray Law	Palo Alto High School
Catherine Li	The Harker School
Felix Liu	Basis Independent Silicon Valley
Ethan Liu	The Harker School
Peter Matsakis	Proof School
Emmett Mighdoll	Proof School
Rohan Ramkumar	The Harker School
Arnav Ratna	The College Preparatory School
Ganesh Sankar	Lynbrook High School
Adam Tang	Basis Independent Silicon Valley
Peter Vandervelde	Proof School
William Zhao	Dougherty Valley High School

## 3 School Awards

BAMO recognizes two types of school awards: *participation* awards, going to the schools with the largest number of students scoring at least 7 points (one problem) on the exam, and *team* awards, measured by the sum of scores of the top three students from each school.

#### 3.1 BAMO-8 Participation Awards

School	# Students
Ellen Fletcher Middle School	29
Proof School	25
Harvest Park Middle School	23
Synapse School	23

#### **3.2 BAMO-12 Participation Awards**

School	# Students
Proof School	26
The Harker School	16
Henry M. Gunn High School	10
The Nueva School	10

#### 3.3 BAMO-8 Team Awards

School	Sum of three highest scores
Proof School	91
The Harker School	86
Harvest Park Middle School	84

#### 3.4 BAMO-12 Team Awards

School	Sum of three highest scores
Proof School	98
The Harker School	97
Basis Independent Silicon Valley	94

# 4 Special Awards

BAMO special awards single out students for unusually creative solutions, unusually good art, excellent writing, and also, exceptional youth. This year we only gave out Young Student Awards, for students in grades 6 or younger who scored at least 21 points (3 problems correct) on BAMO-8.

Name	School	Grade	Score
Alexander Braun	Ocean Grove Charter	4	21
Kieran Callahan	Synapse School	6	30
Minghao Guo	Portola Highly Gifted Magnet	6	28
Helen Law	Greene Middle School	6	27
Alex Zhan	Basis Independent Silicon Valley	6	24
Tejo Madhavarapu	Homeschool	6	23
David Fox	Proof School	6	23
Arya Reddy	The Nueva School	6	21