# TYEE PTSA COMPETITION MATH CLUB

2022-2023 Parent Information Night

#### **OBJECTIVE**

Tyee PTSA Competition Math Club aims to foster students' interest in math through preparing for and participating in math competitions.

We are open to **every** Tyee student, regardless of math level or capability.

#### **Head Coaches**

#### Yuuki Sawanoi

- Senior at Interlake High School
- Coached WA MATHCOUNTS Team to 2nd place Nationals alongside Tristan
- Problem Writing Lead and
   Curriculum Development Lead at
   Mustang Math
- USA(J)MO Qualifier
- Harvard-MIT Invitational
   Competition Qualifier

#### **Tristan Kay**

- **Senior** at Interlake High School
- In 8th grade competed at MATHCOUNTS with Yuuki
- Coach at Tyee Science Club
- Current Vice President of Interlake
   Math Club
- Problem Writing Lead at Mustang
   Math
- 3x USA(J)MO Qualifier
- MOP 2021 Qualifier

#### **VOLUNTEERS**

#### **Advisor:**

Mrs. Odorico

#### **Co-Chairs:**

- Joanne Wang
- Yinqi Zhang, PhD
- Xiaohong Fan, PhD
- Zhen Jiang, PhD

#### **Coaches**

- Alansha Jiang
- Bryan Shi\*\*
- Daniel Ge
- George Shao\*\*
- Jeffrey Zhao
- Matthew Fan
- Matthias Kim
- Minghan Sun
- Mingyue Yang

- Rico Qi
- Song Han Ngo
- Stella Bie
- Sunny Guo
- Tristan Kay\*
- Yash Mathur
- Yuuki Sawanoi\*
- (\* Head coaches)
- (\*\*Advisors)

## **MEETINGS**

- Most Fridays, 5:15 6:45 PM (check math club calendar for detailed information)
- Placement Exam: October 7
- First meeting: October 21
- Meetings will be conducted in person

#### CONTENT

- Relatively unrelated to school math; will not reteach any traditional classroom content
- Main topics: Algebra, Geometry, Number Theory, Combinatorics
- Competition preparation: tips and tricks, mock exams
- Reference materials:
  - Problems from past competitions: Math Is Cool, MathCounts, AMC series, WSMC, Math Olympiad, etc.

#### **CLASSROOM FORMAT**

- 6 classes
  - Students will take a placement test on October
     7 to determine their class placement
  - Class assignments are not absolute
- Lecture and problems every week during meetings
- Weekly Homework

#### **EXPECTATIONS**

- School math level ≠ competition math level
- Content in classes will be challenging; ask questions when confused
- Participation in class, homework, and competitions
- Students must respect and follow the requests of student coaches and volunteers.

#### **POINT SYSTEM**

- Class participation 5 pts possible
  - Points may be deducted for disruptive behavior
- Homework 20 pts possible
  - Reasonable attempt 10 pts
  - Correct answer 10 pts
- Competitions 60 pts possible
  - Participation 25 pts
  - Individual Award 20 pts
  - Team Award 15 pts
- Parent Volunteering 5 points for Classroom volunteering

## **COMPETITIONS**

- AMC 10A: 11/10/22
- AMC 10B\*: 11/16/22
- AMC 8: 1/17 1/23/2023
- MATHCOUNTS
  - School Round: 12/9/22
  - Chapter Round (invitational): TBD
  - State Round (invitational): TBD
- AIME I: 2/7/22
- AIME II: 2/15/22
- 3MT: 11/19/22, MMT: 4/29/23
- Math Is Cool Championships (MIC) & Masters (invitational): TBD
- Washington State Math Championship (WSMC @ Blaine): TBD
- Other Math Competitions host by local High Schools: TBD

<sup>\*</sup>May not be offered at TCMC

#### **NOTABLE AMC ACCOMPLISHMENTS (2021-22)**

- 1 USA(J)MO Qualifier
- 9 AIME Qualifiers
- Perfect AMC 8 School Score (Top 10 of 1759 schools nationally)

#### **NOTABLE MATHCOUNTS ACCOMPLISHMENTS (2021-22)**

- 1st Place Chapter Team & Individual
- 1st Place State Team
- 4 Students in Top 10 State Individual
- 2nd Place National Team (2 Tyee team members)

#### **COMPETITION SIGNUPS**

- MathCounts, AMC8 and AMC10 are individual level.
- AMC8 and AMC10 signup will be open to Tyee non-TCMC students but using different registration links.

 Individuals and teams will be separate for other contest registration. Students are encouraged to form their own teams.

**TCMC can help students find teams** if necessary.

AM	MEMBER	STUDENT FULL NAME	Math at Tyee System
1	1		algebra 1
1	2		Imt2
1	3		Imt2
1	4		Imt2
2	1		IMT2
2	2		imt 2
2	3		imt1
2	4		
3	1		Geometry
3	2		Algebra 1
3	3		Algebra 1
3	4		Imt2
4	1		Algebra 1
4	2		Algebra 1
4	3		Imt2
4	4		Imt2
DIVIDU	ALS		
		STUDENT NAME	Math at Tyee System
			Imt2

#### PARENT INVOLVEMENT

- Check and respond to math club emails in a timely manner
- Volunteer in classrooms
- Cooperate with TCMC in competition sign-ups
- Monitor/Proctor students during competitions
- Other tasks when required

#### REGISTRATION

- Club fee: \$60 flat fee per student, scholarships available
- Online signups will be published in TyeeTimes from 12:00 AM
   9/25/22 through to 11:59 PM 10/02/22 OR earlier when the
   max of 125 students are registered
- Contact <u>tyeemath@gmail.com</u> if any further questions

### **ACTIONS NEEDED & IMPORTANT DATES**

- 9/25 ~ 10/2 Registration will be open through TyeeTimes and be closed when the max of 125 students are registered
- 10/7 Placement Exam
- **10/14** Class assignment available
- **10/21** 5:15~6:45pm First meeting day

## **QUESTIONS?**

Any questions?

#### A problem for those who are bored:

We have 2023 coins which all have different weights. We can distinguish the coins by sight, but we cannot reliably compare their weights without a special coin-weighing machine. The machine works as follows. First, we insert six coins. Then the machine outputs the second and third heaviest coins out of these six in one cup (but it does not tell us which coin is the second heaviest and which one is the third heaviest), and the other four coins in a different cup (but, again, it does not tell us anything about how these four coins compare to each other). We can use the machine as many times as we like. Is it possible, with the help of the machine, to determine which coin is the heaviest? (Source: Adapted from WOOT)