BAC Math Olympiads

Information Guide 2018-2019

Greetings Math Olympiads Parents!

This is Mr. G. I have created this informational guide so that you can quickly check for answers to the most common questions you may have.

If you have successfully enrolled your child in one of our classes, congratulations! For parents who are on a waiting list, we will try our best to accommodate you.

I. Class Schedule for 2018-2019

Current as of August 31, 2018 – all classes at Bay Area Chess Office

Time	Section
Mondays 6:00 – 7:15	Division E
Mondays 7:15 – 8:30	Division M

30 Class Dates, September through May

- Sep. 17, 24
- Oct. 1, 8, 15, 22, 29
- Nov. 5, 12, 26 *(no class Nov. 19)*
- Dec. 3, 10, 17 *(no class Dec. 24, 31)*
- Jan. 7, 14, 28 *(no class Jan. 21)*
- Feb. 4, 11, 25 *(no class Feb. 18 due to Winter Break)*
- Mar. 4, 11, 18, 25
- Apr. 1, 8, 22, 29 *(no class Apr. 15 due to Spring Break)*
- May 6, 13, 20 *(no class May 27)*

II. General Information

Where are the classes located?

Classes meet at Bay Area Chess: 2050 Concourse Drive #42 in San Jose.

What is the class size?

Maximum enrollment per class is 27. This follows the "Mr. G. Rule of 3." No student ever sits more than three rows from the board.

What are Division E and Division M?

"Division E" means Elementary School. For Math Olympiads, that means grades 4-6.

"Division M" means Middle School, or grades 6-8.

Math Olympiads contests are by grade as follows:

- **Students in grades 4-5** almost always take Division E.
- **Students in grades 7-8** <u>must</u> take Division M.
- **Students in 6th grade** have a choice to take E or M. If your child is in 6th grade and is looking to build confidence with math, E is the way to go. If they are already strong in math and are ready for an additional challenge, they should take M.

How long do classes run?

All classes are 75 minutes in duration. If the class runs long, you do not pay extra.

What are TA's, and what do they do?

TA's are <u>Teaching Assistants</u>. All TA's are former students of mine who have taken Math Olympiads classes and scored at least 90th percentile on their contests. Furthermore, TA's must have strong leadership qualities, maturity, and a natural ability to relate to their peers. TA's undergo thorough training so that they are prepared for their main responsibility, which is homework correction.

Each section will have one TA dedicated to that class. TA's are entirely responsible for grading homework, which is assigned about three times per month on average. Because this is the first time we are offering Math Olympiads through Bay Area Chess, TA's will correct homework offsite.

Who teaches the class?

I (Mr. G.) am the teacher for the classes and will teach class every week unless I am out of town (at most two times per year). During weeks when I am out of town, classes will be taught by Ms. T. Ms. T. graduated from UC Berkeley with a degree in computer science, worked many years in the engineering field, audited several of my classes, enrolled her two sons in Math Olympiads for five years, and basically knows everything there is to know about our classes. She will give our students additional perspective and teaching methods (as well as a female role model for our girls who pursue STEM careers).

What is the cost, and how does it compare to other Math Olympiads courses in the area?

When I first offered this program in Cupertino in the mid 2000's, classes ran 60 minutes. I realized that classes needed to run a bit longer, so I extended the class to 75 minutes – but the price per class stayed the same. Thus, the price per hour actually decreased. Over the years, we have kept the price of the class competitive with other Math Olympiad programs.

This year's price is $30/class, 0r $24/hour. How does this compare to other programs? Let's take a look.

Among several programs that offer Math Olympiads nearby are Fremont and Milpitas. According to Fremont's recreation website, Math Olympiads for ages 9-11 meets on Saturdays for 60 minutes. The cost for 10 classes is $249 + $15 registration = $264. That comes to $26.40/hour for Fremont. Bear in mind that this program is only for the fall, not for the entire year; parents would have to re-register every quarter for a full year curriculum.

As for Milpitas, their website only lists summer classes at the moment, and the classes offered were one-week camps. For students aged 9-12, the camp ran from June 12-16: five days, 2.5 hours per day. The cost was $335 + $15 materials fee. Thus, $350 for 12.5 hours of instruction comes to $28.00/hour for Milpitas. Once again, this was not a full year course.

In addition to the numbers above, you should also keep in mind:

- Our program has no additional materials fee.
- "Communication Academy" teaches the courses at the other locations; you are not told who the specific instructor is. I teach all Bay Area Chess Math Olympiads courses.
- Our program has a TA dedicated to each class to grade homework.
- Parents register just once for the entire year with BAC. In the other programs, parents must re-register each quarter (assuming Math Olympiads is offered throughout the school year).

How many students took Math Olympiads last year in Cupertino?

Six summers ago, I made the mistake of offering only six sections at the beginning of the registration period: four classes of E, and two classes of M. By early August we realized we needed to add another section, but that also filled up. By early September we had a waiting list of some 75 students! Ultimately, we managed to accommodate all interested parents by having 10 total sections (7 E, 3 M). The total enrollment for the program was 252 students, with no vacancies.

Five summers ago, we offered ten sections, but interest had grown so much that even ten sections was not sufficient to meet the demand. Finally, we expanded our course offerings to 13 sections, accommodating 330 students. All spots were filled and there was a long waiting list.

This year in Cupertino, I am teaching three days a week, offering 13 sections. Thanks to Judit's input and support, she has finally convinced me to teach for Bay Area Chess on Mondays. We will offer two sections of up to 27 students each. If demand is high, we might add another section.

III. What is Taught

Is Math Olympiads a raw math class?

No. Some math concepts are indeed taught (prime numbers, area of shapes, rate/work/speed, and so forth) but that is not the primary element. That is because Math Olympiads is CONTEST math.

How do Math Olympiads contests work?

Students take five contests, administered during class, over the course of the year – about one per month from November through April. The contests are written in New York, but taken here. All problems are free response (not multiple choice) word problems.

What then do the students learn?

Students learn, first and foremost, how to <u>break down</u> the problem. They learn how to organize information, how to choose an appropriate strategy given the wording of the problem, and how to solve creatively when no obvious solution presents itself. In short, students learn <u>how to think</u>.

When TA's correct and return homework, students learn what they are doing well, and what needs to be improved. This feedback allows students to pinpoint their individual learning needs efficiently.

Do lessons repeat from year to year?

No. <u>Math Olympiads is offered on a 3-year non-repeating cycle</u>. Thus, a student can take division E in grades 4, 5, and 6 and not repeat lessons, or take division M in grades 6, 7, and 8 and not repeat lessons.

From where do the lessons come?

I write the lessons myself, using prior contests to help me create problems that the students will enjoy. Most weeks, students will tackle a set of five different problems, covering a variety of math ideas. About once per quarter, students will have a thematic lesson that focuses on one specific concept. Finally, once a year, students enjoy a hilarious "story" that sets up the problems for that week.

Occasionally, TA's will write problems for the students to solve. These are checked and approved by me for accuracy and appropriate difficulty level. Students especially love story week and TA problems.

IV. Registration Procedures

How do I sign up for a class?

Sign up details will be provided through Bay Area Chess. Spots will be filled on a first-come, first-served basis.

Is this a quarterly class or an annual class?

Math Olympiads is a nine-month course (September through May) that runs for 30 weeks. Parents pay once for the entire year and do not need to re-register in the winter or spring. Because this is a non-changing weekly class, make sure you are able to commit to the time for which you are signing up.

Note that there are scheduled breaks that coincide with typical holidays and vacation weeks. Specifically, there is no class during the week of Thanksgiving, the last week of December/first week of January, winter break (February) and spring break (April), and federal holidays (Labor Day, New Year's Day, MLK Jr. Day, and Memorial Day).

Can I guarantee a spot?

Because BAC enrolls students without a lottery, you are guaranteed a spot if you register as one of the first 27 to enroll in either division. Note: if all classes are full, get on a waiting list. I will contact parents about the possibility of another section if demand is high enough.

V. Parent and Student Feedback

Why are these classes popular with parents?

Based on course evaluations that I have received as well as verbal feedback from parents, I have identified three main reasons for the popularity of this program.

- Tremendous Value. For a breakdown of our program vs. other Math Olympiads programs in the area, please see page three. The quality of the program and specifically the method of teaching far exceed that of comparable Math Olympiads programs.
- Subject Matter. Parents in this area are especially interested in seeing their children succeed educationally. Instilling a love of math at an early age is clearly a top priority.
- Teaching Quality. That goes for Mr. G, Ms. T, and our Teaching Assistants!

Why are these classes popular with students?

Students are not concerned about value, but they are certainly interested in other aspects of the class. Here are the main reasons why students typically enjoy the Math Olympiads program:

- Challenge. The problems range in difficulty from straightforward (15%) to moderate (35%), difficult (35%), and very tough (15%). Challenging problems are fun because you aren't expected to solve them, but you feel fantastic when you do.
- Teaching Methodology and Style. NO LECTURES! I use the Socratic method for all lessons. Students "teach" the problem by instructing me what to do at each step. Thus, learning math becomes interactive and fun. Students also read all problems out loud. The problems themselves are designed to be silly, hilarious, and sometimes ridiculous. What better way to engage a student?
- Discipline/Timeouts/Surprises/Rewards/Games. At the beginning of each class, I write 1-2-3 on the board. Students are allowed no more than two timeouts as a class. If the class does not get a third timeout, they receive whatever surprise I have prepared that night. Food surprises range from carrots to brownies to teriyaki vegetables to hot chili gummies; game surprises range from RQG's (five dollar instant questions) to 10-for-10 (one minute set of questions for $10) to instant winner shots (with whatever ball I have brought to class).

Is there anything else I should know?

Many students have taken Math Olympiads for three years; some have even taken it for six years! I think part of the reason for this is that when I teach in the classroom, I always put myself in the student's shoes. I am constantly asking myself: "Would a student think this is interesting?" If students are engaged, THEY LEARN! I want them focused and excited during class. I don't believe in boring math classes, and my teaching style reflects this. As I see it, my job is to motivate and to inspire. If I can do that, the rest is easy.

Thanks for reading!

Personal Info

Mr. G. graduated from UCLA with a degree in History. He started out as a math major, but the classes were too dull, so he switched. He has been teaching as long as he can remember – at least since age 10. In addition to Math Olympiads, Mr. G. has taught Instrumental Performance, Leadership, and Chess for the City of Cupertino. He has also taught or tutored Spanish, piano, writing, tennis, and SAT preparation (and possibly other subjects) in the past.

After college, Mr. G. worked in Human Resources for Cisco Systems for just over a year. Although he liked the company, the job was too boring, so he started his own teaching business instead.

His rather unique interests include chess, piano, college football, figure skating, cooking, tennis, hiking, baking, board games, soccer, and politics. Mr. G. hates ultimate Frisbee but loves cats. He is patient with people but has no tolerance for malfunctioning machines. His mother would be furious if he did not reveal that he graduated Phi Beta Kappa. His father, on the other hand, would simply point out that his son makes pretty good pancakes.