

### SchoolNova Math Club 1 & 2 Rules

1. Please be on time for the class! Late arrivals are very destructive for students and instructors. Therefore, we will not be able to let any late students into the classroom 5 minutes after the start of class. If you are late more than 5 minutes, please wait and join the last section for the math club level:  
for Math Club 1 - 1B (12:15pm - 1:10pm) and  
for Math Club 2 - 2C (1:25pm - 2:20pm).
2. We need time to prepare the classroom for the next lesson: doors to the classroom open 5 minutes before the start of class.
3. In case the student will be missing a Math Club class, please let us know by email.
4. Material fee for Clubs is \$40 per semester or \$80 per year per student. The fee will be collected by SchoolNova along with tuition. The fee will be primarily spent on: printing hand-outs, Games library, material for lessons (mirrors, cardboards, and so on...)
5. Math Club 1 students are required to be able to read on their own. If it is not a case, please wait a year to join the Math Club 1.
6. The Clubs will run in a different format this year: each Club will alternate between i) class of hands-on activities and ii) class of problem-solving and mathematical games. The schedule for the semester is:

	<b>Math Club 1A (9:00a - 9:55am), Math Club 1B (12:15pm - 1:10pm)</b>	<b>Math Club 2A (9:00am - 9:55am), Math Club 2B (12:15pm - 1:10pm), Math Club 2C (1:25pm - 2:20pm)</b>
September 22nd	No Math Club 1	P116
September 29th	P116	No Math Club 2
October 6th	P124	P116
October 20th	P116	P124
October 27th	P124	P116
November 3rd	P116	P124
November 10th	P124	P116
November 17th	P116	P124
November 24th	P124	P116
December 8th	P116	P124
December 15th	P124	P116

7. Because of the large number of students in Math Clubs we can not accommodate parents in the classroom during classes: only parents volunteering for that day will be in the classroom.
8. One parent for each student volunteers once per semester in the classroom. We ask that the volunteer parents help us with hand-outs and taking photos.
9. Photos will be taken during the class by the parent volunteering, and the album will be sent only to the parents of students in the class. This is covered by the SchoolNova's photo/video release that all parents sign.
10. Just like in previous years, all parents volunteer for the Annual SchoolNova Math and Science Festival to be held in the Spring 2020.
11. Games Library will start on October 6th. We ask that parents check the game for completeness before returning it and let us know if any parts are missing.
12. There is no mandatory homework for Math Clubs 1 and 2. We will make olympiad problem sets from previous years available through google-drive for those who would like to practice.

Email: [yakubovskaya@schoolnova.org](mailto:yakubovskaya@schoolnova.org)

Elena, Anar and Ivanka  
Phone: 631-672-1592

# Tentative Math Club 1 2018-2019 Topics

Are you good at giving directions?

Not just squares: domino, triomino, tetromino and pentomino!  
Pentominoes 2D and 3D  
Blokus game.

Baguette and pizza: how many cuts to share with everyone?  
Cut a chain with minimal cut!

Knots: tie your shoes!  
Loops and knots: making chains without staplers, glues or tapes!

Fold and cut theorem: how to cut only once?

Ghost Blitz: how fast can you match shapes and colors or none of them?  
Game of SET: all the same or all different!

What color is your hat?  
Logic table: how to tell a knave from a knight?

Mirrors symmetry: everyday object hidden in plain sight!  
More mirrors: who can read upside down? Just from the bottom half?  
Even more symmetry: what can a single hole punch do?  
Mirrors again: how do kaleidoscopes work?

The skyscraper problem: how are city streets arranged?  
Keva: can you make a leaning tower from plain wooden planks?

Projections: can side views tell us everything about an object?  
What do cubes look like when flat?  
Zome: how many sticks can make a soccer ball?

Cyphers: how to write secret messages and how to read them?

Game-theory: how to win always?

Tessellation: can identical shapes fill the entire board?