

Dear Students and Parents, Welcome to Math 5a!

My name is **Theo Drivas** I will be your SchoolNova Math class teacher this year.

A little bit about me: I hold a PhD in Applied Mathematics from Johns Hopkins University and currently work as an assistant professor in the Mathematics department of Stony Brook University. My research interests include fluid dynamics, turbulence theory, and dynamical systems. For more information about me, see

<http://www.math.stonybrook.edu/~tdrivas/>

You can reach me at drivas@schoolnova.org



Classwork and homework:

The handouts containing the assignments and the basic theory will be posted on SchoolNova Web. I will assign weekly homework. They are **extremely important** for understanding the material: it is common that some new idea or method is presented to students as a series of homework problem. Thus, it is vital that the students do the homework. The homework should take about 1 to 2 hours. Each homework has problems of varying difficulty. It is not expected that each student can do all of them, so do not worry if your child cannot solve some problems. Make sure to solve homework assignment on separate paper, and not on the assignment sheet itself. Also, make sure to write your solutions and not just answers.

Questions and Help:

Students and parents are always welcome to reach out to me with questions and for extra help by email to drivas@schoolnova.org.

Topics:

During this year we will study the following topics:

- Arithmetics: prime numbers, GCD, LCM
- Algebra: simplifying expressions factorization, equations, absolute value, powers, roots
- Fractions: decimals, scientific notation
- Basics of probability
- Basics of geometry

At the beginning of the year, during the first two classes, we will review the previous material.

Some emphasis will be placed on teaching students to solve problems which, while they do require some knowledge of basic topics, are not straightforward exercises but require some creativity. Think of "puzzles" or "brain-teasers". It does not necessarily mean that such problems are more difficult than usual textbook exercises, but they definitely will be more interesting. We will solve problems working collectively in class; more problems will be given as homework exercises. Most of these problems will be tied to the topics listed above, but there will also be problems which are not directly related but are interesting enough to be discussed anyway.

We will also solve some interesting problems from math olympiads, such as Math Kangaroo and AMC 8.

Thank you for choosing the SchoolNova! I look forward to working with all of you.