**Math Programs**

**Math course**

Algebra (polynomials, exponentials and radicals, equations and inequalities, etc.)

Geometry (plane, solid & analytic)

Number theory (self-taught)

Permutation & combination (self-taught)

Exponential and Logarithmic Functions (self-taught)

Precalculus (Trigonometry, complex numbers, vectors, conic sections, series, etc.) (self-taught)

Probability

Statistics

**Math competitions**

* will take AMC 12 in February, 2019;
* 2018, First Prize (China), Math League, qualified for US Final (at Stanford) and its Math Camp (co-held by the Departments of Mathematics of Princeton University, Columbia University and Williams College);
* 2017, Second Price, Jiangsu Junior High School Mathematics Competition;
* 2017, Second Place (Global Final), The Berkeley Mini Math Tournament (BmMT).

**Mathematical activities**

Sudoku, black jack, mental abacus calculation…

**Recommendation letter**

# HCSSiM,

June 30 - August 10, 2019 (Amherst, MA) 早

**https://hcssim.org/**

**Fees:** HCSSiM 2019 will cost $4,913 per student.

**Deadline:** rolling, last year we ran out of spaces in mid-April!

**Application Portal:** [**https://hcssim.org/apply**](https://hcssim.org/apply)

**Requirements:**

* In early March, you’ll get an email with the 2019 Hampshire College Summer Studies in Mathematics Interesting **Test** attached. If you don’t, **please send an email**.
* **A Recommendation Letter** from Mathematics Teacher

**Essays:**

* List the math courses you plan to take next year (one per line)

Calculus

Computer science

* What mathematical **activities** have you enjoyed? \* We consider juggling to be a mathematical activity.

e.g. 数学游戏活动：用多张名片大的纸做正方体，并搭成大正方体，越大越好。

魔方，24点，斗地主 (300 words)

Sudoku, black jack, mental abacus calculation

When I was entering primary school, my aunt bought me three sudoku books, each with a different level.

It was forgotten for a long time in the corner until one day I finally opened it. Then I had never put it down again.

Almost every weekend I was fiddling with these sudokus.

I started from the beginner level, and then I moved on to the intermediate level, and finally completed the advanced one.

As I open the books filled with those numbers in pencil, I can still feel that sense of achievement for finishing all these 1000 sudokus.

Another mathematical activity I enjoyed is mental abacus calculation.

* What are your non-mathematical interests and **hobbies**?\* Examples include but are not limited to Ultimate Frisbee, chess, music, Wack-a-Mole, sky-diving, etc. (300 words)

带有personal interest 的hobbies。重新定义painting对你的意义，它并不只是一门艺术，science/画画的目的，想要做什么用

* Have you previously attended any summer academic programs? If so which ones and in which years? MathPath, BEAM, MathCamp, PROMYS, SUMaC, and MathILy are just a few examples.

No.

* Are there any **questions** you would like us to answer (aside from the Riemann Hypothesis)?

We can answer all other Riemann Hypothesis-related questions at the next session of HCSSiM.

我能得到什么，或者不问

* Here’s the friendly-and-informative-letter portion of the application: Please explain **why you are applying**; cite, if possible, specific ideas, books, proofs, or problems which have particularly stimulated you, and indicate why you believe you would enjoy the Summer Studies. \* (500-600) 或者和化学的关系

Bayes’s Theorem

Art history

# Canada/USA Math Camp,

June 23 - July 28, 2019 (Lewis & Clark in Portland, MA) **http://www.mathcamp.org/**

**Fees:** The base cost for Mathcamp 2019 will be $4,500 USD.

**Deadline: March 15, 2019**

**Application Portal:** <http://www.mathcamp.org/prospectiveapplicants/howtoapply.php>

**Requirements:**

* Basic personal and contact information.
* Some information about your school and your mathematics background.
* A brief **personal essay** about why you want to come to Mathcamp.
* Your solutions to the Mathcamp **2019 Qualifying Quiz**.
* Two **recommendation letters**: one academic, one personal.

**Essays:**

* If you have done **any math outside of school** (e.g., college courses, online courses, math circles, other summer programs, independent study), please tell us about it and briefly describe the material covered.

Independent study for senior high school curriculum, including polynomials, solid geometry, number theory, counting, exponential and logarithmic functions, trigonometry, complex numbers, vectors, conic sections, series, etc.

* **Personal Statement(500-600):** Tell us a little more about yourself, your interest in math, and why you want to come to Mathcamp. Most applicants answer in a few paragraphs, but there is neither a minimum nor a maximum word count for the personal statement: you can feel free to express your ideas at their natural length. Here are some examples of things you could talk about:
  + What do you hope to gain from a summer at Mathcamp? Do you have any specific goals for the summer, mathematical or otherwise?
  + What do you like about math? Are you interested in math for its own sake, or for its applications to other fields, or both? Are there specific areas or kinds of math that you enjoy, or that you are particularly curious about?
  + Tell us a little about your mathematical environment. What do you like about your school and community mathematical resources? What would you change if you could?
  + What have been some of the most satisfying / unsatisfying / horrible / inspiring / amusing events in your mathematical biography in the last few years?
  + Tell us about a really beautiful or compelling mathematical idea that you have recently encountered. What's so amazing about it?
  + Which of the problems on our quiz did you enjoy most, and why? Did you learn anything interesting from working on them? What were your least favorite problems, and what didn’t you like about them? (Don't worry, we won’t take it personally.)
  + How will you make Mathcamp a more fun, stimulating, welcoming place to be for everybody?
  + Is there anything unusual about your background that we should know about when reading your application?

Feel free to write about anything that could give us some sense of who you are - as a person, a mathematician, and someone with whom we might get to spend five weeks this summer.

只要分别写一下why school

描述一个activity

Why math

喜欢到追求的过渡Goal

What do you want 从。。。的追求

小时候 只知道爱玩🡪长大 知道了从中蕴含的东西 math🡪what other things I know🡪philosophy🡪我对数学的理解 比较philosophical 的understanding

🡪现实，大量example，应用于不同领域 方面 三个，和我现在做的东西的东西是一致的，带project

Aspiration & dream，plan，social science，民主 教育资源 性别歧视

Why school

# PROMYS,

June 30 - August 10, 2019 (Boston University)

Approximately 80 high school students aged 14 - 19: 60 first-year students and 20 returning students. [**https://promys.org/**](https://promys.org/)

**Fees:** $5,000

**Deadline:** April 1, 2019 (2019 application becomes available by the first week in February.) **Application Portal:**

**Requirements:** A challenging problem set, recommendation from mathematics teacher, transcript, and application form.

**Essays:**

**Contacts:** promys@bu.edu

# Mathworks: Honors Summer Math Camp (HSMC),

June 23 - August 2, 2019, (Texas State

University) [**https://www.txstate.edu/mathworks/camps/applications.html**](https://www.txstate.edu/mathworks/camps/applications.html)

**Fees:** The full tuition fee is $4,000.

**Deadline:** April 15, but rolling [Round 1: February 15, notified by Feb. 23]

**Application Portal:** [**www.txstate.edu/mathworks/camps/applications/hsmcapplicationonline\_2019.html**](http://www.txstate.edu/mathworks/camps/applications/hsmcapplicationonline_2019.html)

**Requirements:**

* Essay-written by the applicant
* Transcript from your school- this does not have to be an official transcript lTeacher Recommendation- Preferably from your math teacher/coach

**Essays:**

Please upload an application essay below. Candidates should provide a well-written essay **one-page in length** that includes the following points:

* 1. Where does math fit into your interests?
  2. Describe any extra mathematics activities in which you have participated.
  3. Describe your long-term goals and ambitions.
  4. What do you hope to gain from this summer experience?

**Contacts:** mathworks@txstate.edu (email)

# MathILy,

June 30 - August 3, 2019 (Bryn Mawr, Pennsylvania) [**http://www.mathily.org/**](http://www.mathily.org/) **早**

**Fees:** $4600, which is $920/week.

**Deadline:** April 23, 2019, but rolling

**Application Portal:** [**http://www.mathily.org/nasf.html**](http://www.mathily.org/nasf.html)

**Requirements:**

* Fill out the Short Form (as soon as possible)
* Receive, and complete, and return to us, the Exam Assessing Readiness.
* Fill out the **Not-as-short Form**.

**Essays:**

1. Math courses taken recently.
2. List (perhaps of length 0) of previous mathematics or science summer programs you've attended.
3. Academic achievements you feel like sharing:

任何都可以，但偏数学

1. Extracurricular activities you like (both mathematical and non-mathematical; and, okay, you can include activities you don't like if you think that would be interesting).

数学的一定要

1. Write a couple of paragraphs that tell us why you want to participate in MathILy and how you expect to benefit. What is exciting about spending weeks doing lots and lots of mathematics?

What resources do you lack, particularly in the educational or social realms, that we can provide?

Here are some sentence-starters that might inspire you...

“Wow! This sounds cool because ....”

“I want to get better at ...”

“At my school, ...”

“I think math is (insert adjectives here) because ...”

“I want to learn about ...”

为什么要这个项目，和前面有区别。要做功课

1. Anything else you want us to know?

**Contacts:** info@mathily.org (email)

# AwesomeMath,

Cornell Session 1: June 24 - July 12, 2019

**https://www.awesomemath.org/**

**Fees:** $4,775 (regular round)

**Deadline:** March 31, 2019 (Test B: Mar 8 - Mar 31, 2019)

**Application Portal: www.awesomemath.org/summer-program/application/how-to-apply/ Requirements:**

* personal information
* two letters of recommendation
* admission test (Students will log in to their Student Dashboard to access and download the

test)

**Essays:**

* Math Experience\*

What part of mathematics do you like most and why? What is your favorite problem in this area?

Mathematics activity, 数学的理解应用

* Extracurricular Activities\*

In the past year, what extracurricular activities were you involved in? Describe the nature and extent of your involvement. Which one is most important to you?

**Contacts:** admin@awesomemath.org (email)

Extracurricular activity

Mathematical activity

* 24点，涉及到什么，衍生到哪里

Why school

打开对数学的认知和涉猎 唯独 高阶数学唯独

实际问题 数学分析 解答

挑战数学题

Trace千年以来数学家的推导演算之路 历史感 mental travelling