

The Ypsilanti Math Corps at U(M), Summer 2020

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The *Math Corps* is a phenomenal program at Wayne State University that has changed the lives of thousands of students from Detroit over the past few decades. It is a free Math Summer Camp for middle school students and high school mentors: among those who attend, at least 90% graduate from high school, and 90% of these students will go to college or into the military. Inspired by this program, we established a Math Corps site at the University of Michigan in Summer 2019 for students from the Ypsilanti area.

We closely follow the educational and mentoring practices of the Math Corps in Detroit. The success of this program is rooted in the principle that every child possesses a unique greatness within them. This shapes everything we do from the way we teach our classes to the messages and jokes we feature in our daily Assembly. This sets the Math Corps apart from other programs that have similar goals; it is more effective than anything we have seen in over 40 years of our combined experience as educators.

Due to the pandemic, our program in Summer 2020 had to run virtually. We consulted with all four of the other Math Corps sites (Detroit, Cleveland, Philadelphia, and Utica) and designed an online version of the camp. Everyone involved was slightly apprehensive: how could the Math Corps magic possibly work over Zoom? We dove in and ran our camp from July 13 to August 14, and it was a success! We had about 60 middle schoolers, 30 high school teaching assistants, and 15 college students in our program. We were also thankful for the opportunities to work with math professors Kartik Prasanna, Yunus Zeytuncu, and Michael Dabkowski, and with middle school math teachers Brittany Harper Wilkes and Camyrea Barnes¹.

We are proud to report that our campers did amazingly well! Every camper took a math class that covered content appropriate for their grade. In only five weeks of camp, the data for the middle schoolers showed significant improvement (in comparing pre/post test averages), and our campers expressed a strong desire to return next Summer².

We are grateful to the College of LSA, to the Math Department, and to the National Science Foundation for supporting our camp this Summer. We are also very grateful to several individuals who donated resources to help with our expenses; we could not have run our program without these generous gifts.

The global pandemic has disrupted the education of students everywhere. This is felt more severely in communities where public schools have fewer resources (like in Ypsilanti and in Detroit). Many of these students will fall further and further behind; this is unacceptable. The Math Corps is tried and true: we know that the program works in person, and it works virtually. There is an undeniable need for it, especially now. We hope to run our program every Summer, and we continue to look for resources to support it in the future.

This packet contains:

Some artwork made by our campers

Some snapshots from camp

An introduction to our campers: Teams 1, 2, 3, 4, 5, 6

A sample of quotes extracted from program evaluations

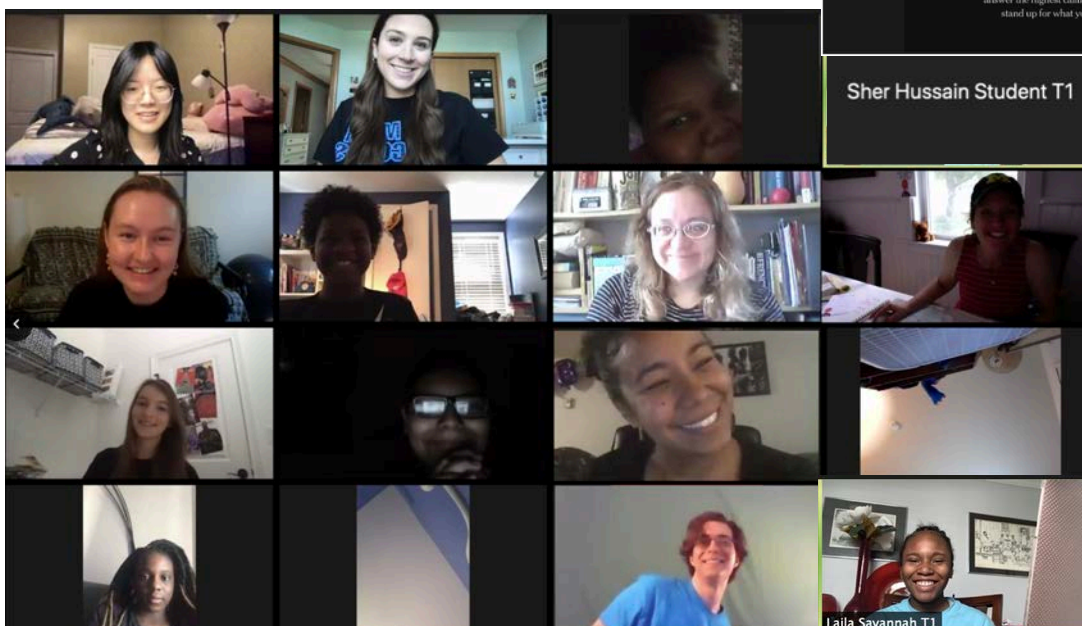
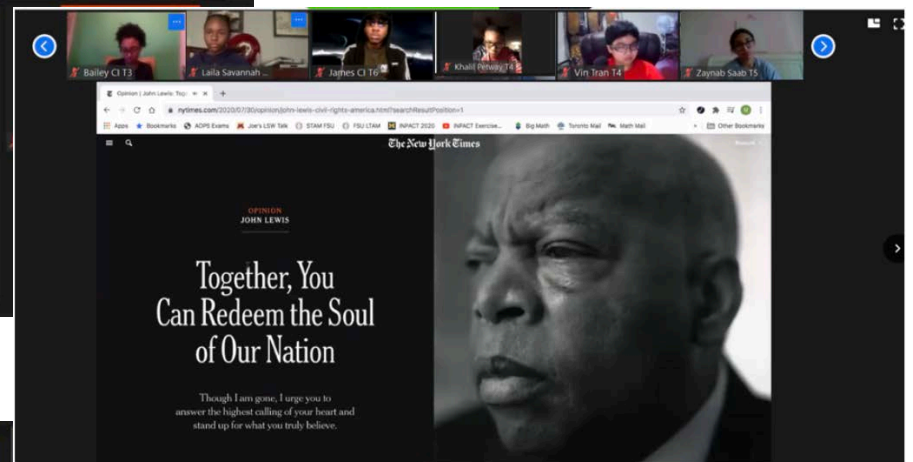
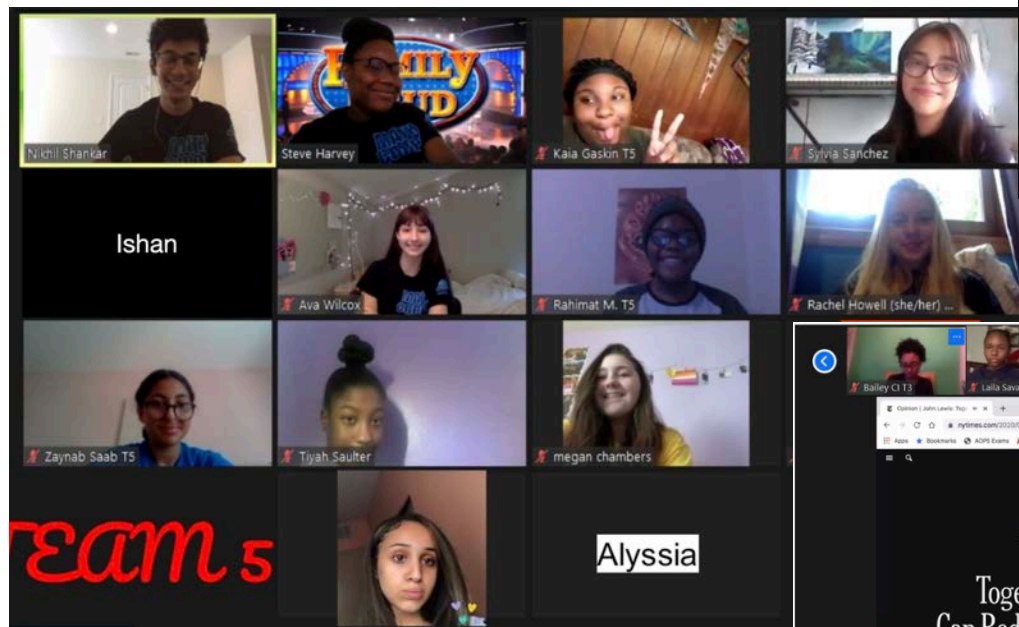
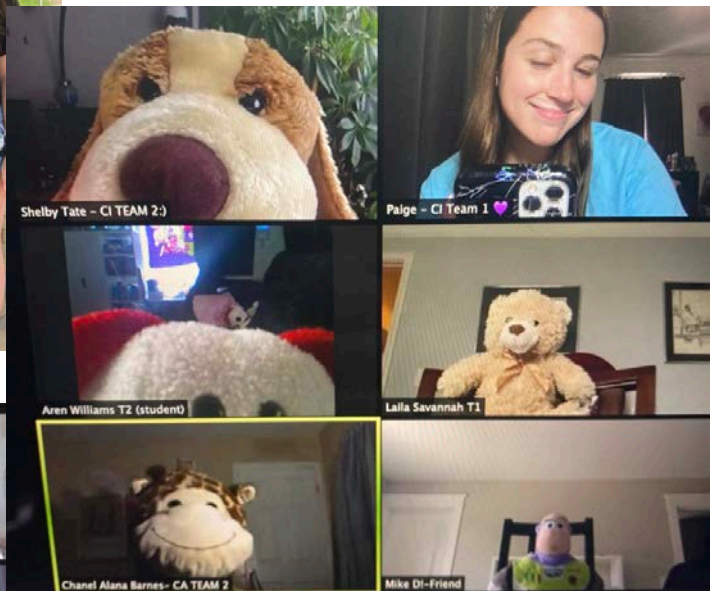
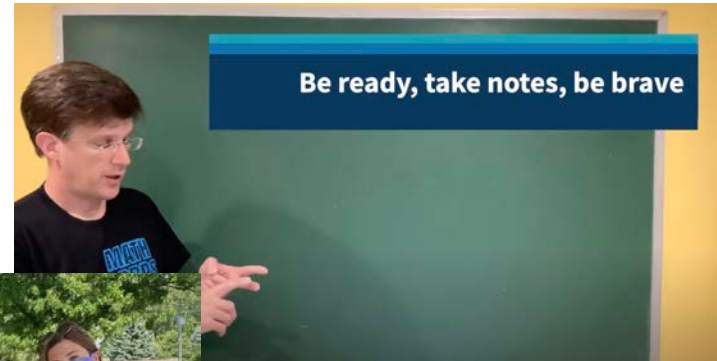
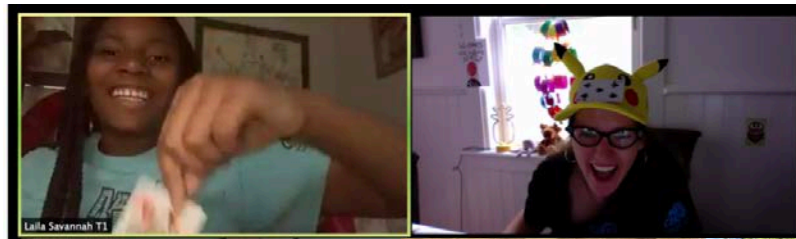
¹Camyrea Barnes grew up in the Math Corps program at Wayne State, beginning as a 7th grader. She graduated from the University of Michigan, Ann Arbor in 2019.

²Please see the section of this document entitled *In Their Own Words* to read what our campers wrote on their program evaluations.

Some artwork made by our campers



Some photos from this Summer



Divide: $14\frac{2}{7} \div 3.2$

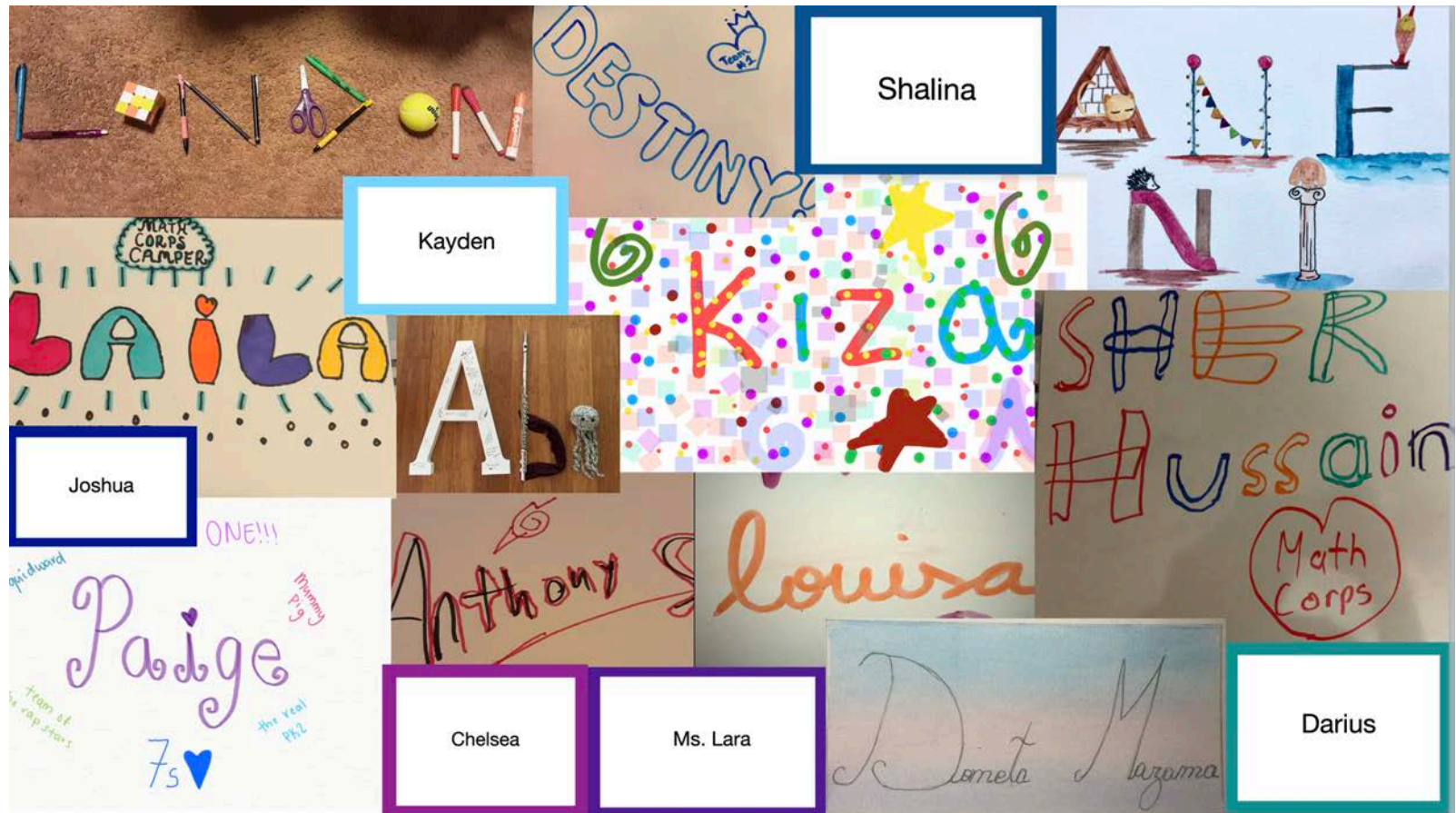
$$14\frac{2}{7} = \frac{100}{7} \div 3\frac{2}{5} = \frac{100}{7} \times \frac{5}{16} = \frac{500}{112} = 4\frac{13}{28}$$

Subtract: $23\frac{2}{5} - 3.638$

$$23.4 - 3.638 = 19.762$$

good job! +vx

Our 7th graders: Teams 1 and 2



Our 8th graders: Teams 3 and 4



Our 9th graders: Teams 5 and 6



In their own words

Some quotes from middle school campers:

- I was really struggling and then I got the hang of it. I was so bad at math and now I am getting really good with this program. It helps me with things I really struggled with. Now I'm better and my experience with Math Corps has been really good and helpful. Everyone is so kind and helpful and very understanding and i love it :)
- This year's Math Corps summer is really amazing. I'm a little behind but I'm confident that I'm going to make it. My Math Corps experience has been amazing. You guys are so supporting. I feel that Math Corps is going to make me a better person in life.
- My Math Corps summer is going great! The energy is on 1,000,000,000 and I love it. Everyone is so nice. Math Corps is one of the best camps I've been to :)
- I really appreciate how positive Math Corps is. There is no other place that I have experienced where I felt so safe and judgement-free honestly. Everyone is just so genuine and values kindness, which you don't experience in a lot of other environments like at school or other programs. It's just unique in that sense because all those superficial worries go away and you automatically feel happy and prioritize the right values of family and love.
- I will come back next Summer. This is the best.
- I loved Math Corps and really hope that I can go again next year.
- My summer at Math Corps is going going really well, and it's been a great experience. I love Math Corps and hopefully I'll get to do it next year.
- I loved how welcoming the environment was. Everyone was so nice and they were extremely helpful. I really hope I'll be able to come back next year because I learned so much, and I really loved the camp.
- I like that nobody is judged here, everyone is loved and loving.
- I really loved getting to be a part of Math Corps this summer. I had so much fun and met lots of new people. I would highly recommend this camp to everyone, and I hope I'm able to return next summer.
- My Math Corps Summer is going great! Math Corps is a wonderful place where I get to learn to the best of my strengths. I feel as Math Corps is just another place to call home.
- My Math Corps Summer is AMAZING. We work, play, and talk, and the joke of the week is hilarious. I feel Math Corps is great and fun.
- Math Corps is really caring for others, and I don't feel nervous to ask questions.
- Overall, I think Math Corps is so unique and special and it should never be changed from how it operates now. I wish our whole world was like this but there really is no place like Math Corps! It showed me that happiness and positivity and family are the most important things in life and that every single person is great. It allowed me to believe more in myself.
- My Math Corps summer is going great! I have had a great learning and just a positive experience. I feel that even though everything is online, Math Corps is super fun!

- I can proudly say I am now comfortable with my math...My summer at Math Corps was great and awesome. I was unhappy and frustrated about any kind of math, in the end I got the hang of most of it. I want to say Thank You to everybody at My Math Corps, for making me feel better about math. My experience was epic the people here are nice and kind, no drama, I love it. Most of all the people here really care about helping you with your math and keep showing you until you understand. This was one reason I didn't like Math. Teachers would not have time to help. My feelings about Math Corps, I feel happy they accepted me and understand me and what my weak areas in Math. They are helping me strengthen to be better at working problems. I have gotten 2 star problems right, with the help and learning strategies. Even though I have not got the 10 out of 10. For me, the star problems mean a great deal to me. I DID IT!!!! I am very proud of myself..What I really feel is that all the kids that need help with Math should join MATH CORPS no questions asked!! I WILL BE SIGNING UP NEXT SUMMER MYSELF!!!!
- I really love being apart of this family and learning new things. Math Corps gave me something to look forward to, I loved seeing what was in store for each day of camp. Math Corps was really fun even if we were doing it virtually, I really enjoined it this summer and hope I can come back next summer!
- i love it. i'll be back
- Thanks to this program I learned a lot about math. Thank you very much
- My overall feelings and thoughts about my experience in the Math Corps this summer are that I really love everyone here, everyone's awesome and there's never any bad days. I'm going to miss everyone here, and I hope that I'll hear from everyone. Thank you so much for making my summer.
- It's really fun!
- It's nice that they help you be yourself
- I liked a lot because it prepared me for high school and now I can help my other friends in algebra who struggle
- My Math Corps summer is going very good. My Math Corps experience is really good because they make learning fun, and they check if you know the answers . I actually love Math Corps because of the fun teachers, and the teachers also support the kids.
- My math corps summer is great it's educational and fun as well. Math Corps is great because it's in the summer and instead of being bored in the summer, we can prepare for the next year and be smarter.
- It is good, and it is fun. My Math Corps experience was fun and funny I have learned a lot. I feel like Math Corps has taught me a lot and made me get my grades up in school.
- its gone good :) :) :)
- It is good and I feel better in math corps.
- My feeling about Math Corps is that it really helped me speak up more because before I came here I didn't say anything in class or ask questions. But now I know it's ok to ask questions.
- My Math Corps summer is going good. My Math Corps experience was useful and enjoyable for me. I feel like Math Corps is a good program. It was worth it.
- My experience with Math Corps is that I learned a lot and had a great time.

Some quotes from high school teaching assistants:

- Math Corps will forever be my family and I hope to return next summer.
- Overall, I am feeling very happy and proud. This experience has been amazing and it has left an incredibly positive impact on myself. Everyday, no matter what, there is an emphasis on striving to achieve your own greatness and the belief that there is potential in everybody truly encourages me to be my better self.
- This whole camp went very well, and the whole mission of Math Corps is really something that I think the world needs more of. I really enjoyed working with students and also learning some advanced math myself! Everyone (the staff and TAs) are all VERY friendly, and I will definitely come back next year!!
- This was the best summer program I have participated in, nothing will ever compare and I'm glad I was able to be a part of this. I can't wait to see how the program continues to grow over the years because it makes such a difference in everyone's lives who have the opportunity of participating in it.
- Math Corps has been fantastic at helping me realize my passion for teaching, so much so that I'm now pursuing it as a career. Everyone I work with is so committed to giving students a better chance at success and creating an environment that allows them to flourish as they are. This is an inspiring place where kids are encouraged to allow themselves to fail, get right back up, and try again. I'm so grateful to have been welcomed into this beautiful Math Corps family.
- My Math Corps summer has been good. This was a wonderful experience. I actually felt like a teacher that had a class even though I only have one little kid. Math Corps is a good way for students to get better at math. When my little sister is on her way to the seventh grade I would recommend this to my mom.
- My Math Corps is going really great! Whether if it was online or on campus I always knew my experience at Math Corps would be an experience I could always go back and reminisce on the great things that I partook in. I feel that Math Corps has always been a place where everyone has a voice and is heard. It's truly on great big family.
- Math Corps has been a truly life changing experience. Being able to connect with other students over math on a personal level is really exciting and I feel so lucky to have been able to form such valuable relationships with the students and the other TAs. Especially this year, Math Corps has been a really bright spot in a difficult summer.
- I love how we are able to interact with individuals through Math Corps that we otherwise would not met. With the camp being virtual this summer, we've been able to form connections with so many great people. It feels as if we are all together in the same room! Math Corps is such a great space for everyone to strive to realize their own greatness, bond with others, and improve their math skills!
- Math Corps is a family! Teaching math is the disguise for our community here. In the Math Corps, kids can feel free to be themselves and take a break from junk in their lives. We uplift each other and recognise our greatness together. Even after just a few weeks, I can see the shining stars being nourished within the camp.
- I feel very warmed and refreshed after attending this camp.

- The people here are absolutely amazing! All of my other TAs, my CI and CA, and the senior staff were just spectacular and way more enthusiastic than I thought. I think the people really made Math Corps work this summer. I think being around other people that were so excited to be here made me realize the specialness of this program. I really want to meet everyone in person and become actual real-life friends with pretty much everyone here. I also think all of the adults here are great role models. They are happy and joyful, but don't forget that life can be really hard. Their optimism is something I would like to embody more in my own life. I'm happy that I was able to spend 5 weeks around genuinely good people.
- This was such a positive, inspiring experience for me. I've never before felt so cared for or felt such a deep sense of belonging. Math Corps really gave me a nurturing community of people who care about me and have given me a boost of energy and self confidence that has been so valuable and powerful for me during this time. I loved my experience at Math Corps.
- I loved it. I think that hanging out with the kids just relieved a whole lot of pressure on my mind and myself that would have definitely weighed me down. I think that being here and being able to remove my mask definitely made an impact on me and definitely changed my life for the better.

Some quotes from parents:

- This was our first year participating the program and we are thoroughly impressed with how well you transitioned to an online format. My husband and I were also impressed with the high level of energy the staff brought each morning. Thank you, thank you, thank you! You all did a wonderful job and we're forever grateful for the time and energy you gave my child.
- Thank you so much for making the Math Corps virtual platform so easy to use. My children are engaged and they really enjoy their mornings with the group. As a mother, my heart is made glad to see my children enjoy learning during the pandemic. Thanks again and blessings to you!
- My child hopes to continue to be a part of this wonderful program. Last year as an 8th grader, she received all As in math and became a tutor. Prior to Math Corps she struggled and had Cs.
- My kids had a wonderful experience this summer, regardless of COVID and the new learning/teaching platform. At first, we weren't sure how to establish a routine, but it all worked out with the proper guidance from the program. Thank you for providing us the opportunity to have this experience. If there is a program next year, we would love to come back.