

# MathEdge



May 2015

## SUCCESS STORIES

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## SARAH HUANG

### Succeeds in AMC10, Qualified For AIME

Congratulations to Sarah Huang, who scored in the top 2% of the 2015 AMC10A, which qualified her for the AIME. This is quite an accomplishment as the AMC10 was particularly difficult this year. She has been with MathEdge since she was in 8th grade and is currently a freshman in high school. She attributes most of her success in the AMC to MathEdge, where she has excelled in our programs.



## SARANESH PREMABABU:

### Accepted Into Stanford, Yale, MIT, And Caltech Among Others

Former MathEdge student Saranesh Premababu, a highschool senior, has been accepted into many prestigious colleges such as Stanford, MIT, Yale, and CalTech among others. This year in 2015, these colleges have record low admission rate with Stanford at 5.0%, Yale at 7.4%, MIT at 8.0%, and CalTech at 10.0%. Congratulations to Saranesh for such a high achievement!

Saranesh thanks MathEdge for providing him the environment to discover his love for math and the opportunity to excel in mathematics at a young age. He credited MathEdge for teaching and exposing him to high level thinking math concepts and improving his problem solving skills.

Through MathEdge, he was selected to be part of the team representing the United States for the 2012 International Mathematics Competition held in Taiwan, and competed against 588 contestants from 28 different countries. There, he was a silver medalist in the junior high section.

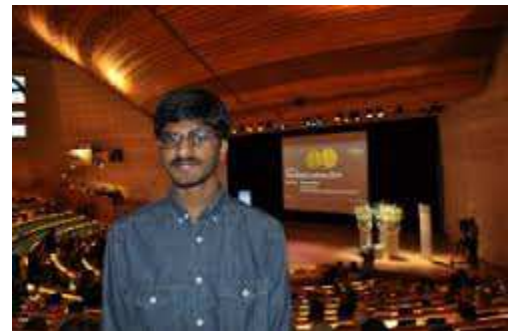
He treasures his experiences with MathEdge and remembers them fondly as some of the most unforgettable moments of his life.

### THIS MONTH:

5/03/15—Mathedge May Contest

5/15/2015—10% early bird discount for fall program ends

5/15/15—5% early bird discount for summer program ends



# The 76th Hunger Games

By: Anthony Qin (G6 W3 student), inspired by the Hunger Games  
(SUZANNE COLLINS)

Today is Reaping Day. Bob of District Redwood MS sat down in the multi-purpose room. On the stage were two bowls, a blue one for boys, and a pink one for girls. Inside each bowl were hundreds of paper strips with names on them.

A jubilant principal appeared and stood behind the two bowls. "Today, two of you will be chosen as tributes! However, there can only be one winner to join the other victors with lunch passes!"

"Boo! Hooray for lunch passes, though!" the students shouted.

"Let the Reaping begin! And may the odds be ever in your favor." the principal announced.

Pulling back her sleeves, the principal thrust an arm into the blue bowl. The room fell quiet, as every student was holding his or her breath. The principal detached a strip and reading it, she said, "And the lucky - or not - tribute is... Bob Bob of sixth grade!"

Bob turned pale. He stood up and slowly limped towards the stage. All eyes were on him as he made his way through the rows. His best friend held a momentary connection with him.

Again, the principal pulled back her sleeves and thrust her hand into the pink bowl. Reading it, she announced, "Bobett Bobett of sixth grade!"

Suddenly, a girl, Bobett's best friend, stood up and made a selfless action. "I volunteer as tribute! Bobett's dream is to watch a movie premiere in the Capitol. I, Cherry Cherry, will not let her down!"

Everyone gasped, stood up, and did the school's "good luck" motion. All the students fluctuated their arms. It was an alien-like motion, but unique.

When Cherry and Bob were dispatched to a remote location, they could still see the students, sustaining the motion. Bob was wary of his surroundings and of the other tributes. As they trained for the games together, Bob noticed their weaknesses. In the end, Bob was confident he would win.

Finally, the day of the countdown to the start of the games had arrived. Then, it struck Bob - he could trick the other tributes into stepping off the pedestals before they're supposed to so they will be disqualified! Bob pretended to be confused, and yelled a question right before the countdown began, "Hey, is it 'three, two, one, go' or 'three, two, one, zero, go?'"

When the other tributes heard this, they shook their heads in confusion.

"Yeah, what is it?"

"Huh?"

Bob then spoke loudly, "I will go off right after 'one,' so I will have a head start!"

In the end, everyone but Bob went off at 'one,' so Bob, grinning on his pedestal, quietly thanked the odds of how all the other tributes hadn't paid much attention to the previous games.

"Indeed," Bob thought as the surprised Gamemakers claimed him as the winner, "the odds are in my favor."



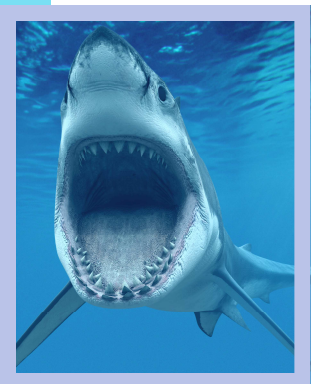
## Great White Sharks *By: Jack Poon (G4 W2 student)*

The great white shark, or White Death, is a fearsome shark known around the world. It has razor sharp teeth that tears through large pieces of prey. The great white shark is estimated to live longer than 70 years. The great white shark is fascinating, but also dangerous.

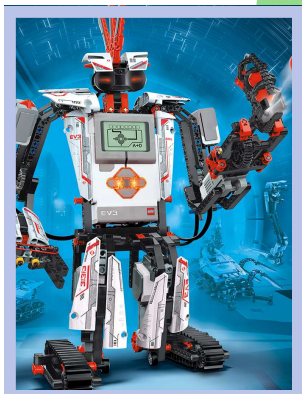
The great white shark is a predator of the seas. It eats fish such as tuna, rays, and even other sharks. It also eats cetaceans, such as dolphins, porpoises, and whales. Furthermore, they eat pinnipeds such as seals, sea lions, sea turtles, sea otters, and sea birds. They have many features such as camouflage to make it easier to hunt these sea animals.

The great white evolved to have features to help them. When they eat food, their razor sharp and clean teeth saw the food by thrashing their heads side to side. A shark can counter shades or camouflage. A shark can smell one drop of blood in one thousand cups of water! Its sense of smell can smell animals far away.

Great White Sharks are fascinating, yet dangerous. Great white sharks are one of the kings of the sea. They eat all kinds of animals, such as fish and other sea mammals. They have many helpful features, such as their sense of smell.



# What Are You Good At?

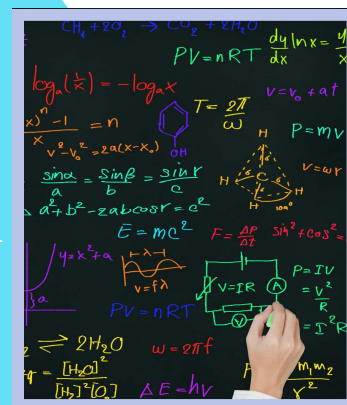


If you had to pick one thing you were good at, what would you pick? I would pick robotics for many reasons. First, I learned robotics when I was in fourth grade. My parents got me a kit for Christmas. It was an RCS kit, the less advanced type. Later on, I upgraded to NXT. Second, I now take part in competitions where you must build a robot that completes a certain number of missions to get points. I passed three rounds until I was eliminated. Finally, I do robotics just for fun. I make models everyday that can do many things. As you can see, I am good at robotics.

*By: Aashia Shaikh (G7)*

Some people are good at sports and music, but I have an exceptional talent for mathematics. I like math and am good at it for several reasons. First, I like math because it boggles the mind. I really like thinking hard and deep about subjects, and math makes you think by setting up a problem that is difficult to solve. To continue, I'm good at math because of how I work. My parents make me work hard so I can become good at this subject they are masters at. I also think logically on how to approach certain scenarios by adding or substituting and other operations like those. Clearly, I have a passion and a talent for the field of mathematics.

*By: Justin Chan (G7)*



## How TV Affects Children

*By: Shruti Sridhar (G4)*

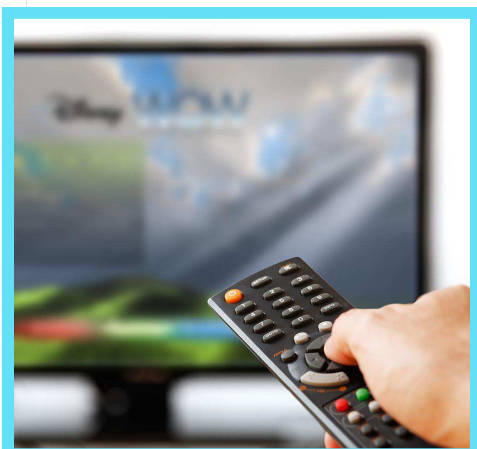
When I was five years old, I used to watch a lot of junk TV, not knowing that it could cause many bad problems inside my body. Kids can watch good TV, but the majority would choose cartoons, and too much of this back to back can cause severe problems. For example, you have a more likely chance to be overweight, you can learn bad values, and you can get mental problems.

Too much TV can increase the rate of obesity. This privilege is proven to make kids overweight. Health experts have long linked excessive TV to obesity. While watching TV, kids are inactive and tend to snack, and eat unhealthy foods such as potato chips and empty calorie soft drinks. Kids have to be physically active to grow into healthy adults. Less TV can help them do this.

TV can also give bad examples and values. It teaches children negative behaviors such as drinking alcohol, doing drugs, and smoking cigarettes. When kids see these activities happening, they are more likely to do it when they grow up.

TV can additionally come in the way of brain development. Kids under 2 years of age still have critical developing minds, so babies are recommended not to watch any TV. TV and electronics can get in the way of exploring, playing, and interacting with parents and others, which encourages learning and healthy physical and social development.

Too much TV is negatively affecting kids all around the world. Kids should watch a minimum of 30 minutes to 1 hour of educational TV on weekends after getting permission from an adult. Then, children are fine watching TV once in a while.



## Sensory

It was a cold night and the air was wet with dew. Rain had been pounding the earth all day, but now, in the darkness, all was calm. No longer did I breathe in the bitter air of a dusty, dry summer. The mountains were always so beautiful in the fall.

I should have been sleeping soundly in my cabin by now. All the other campers had gone to bed and the once raging fires were just glowing red embers. I, however, had decided to walk down to the lake.

The water splashed lightly against the cold rock I was perched on. All about me was silent, other than that rhythmic crashing.



*By: Summer*



# PUZZLES OF THE MONTH

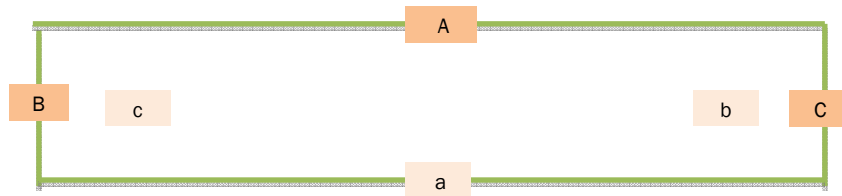
**MathCore LEVEL D Challenge 1 (3rd grade or lower)**

1) Draw all lines of symmetry for each shape. If there are none, draw nothing.



2) I am a secret number. I started to add 5, then divided by 6, then subtract 2, then multiplied by 2345, and finally add 8. I now became eight. What secret number was I?

3) Connect each letter (A, B, C) to its home (a, b, c) with 3 lines (A-a, B-b, and C-c) but the lines (not necessary straight) cannot cross each other. How would you draw the 3 lines?



**MathCore LEVEL E Challenge 1 (5th grade or lower)**

1) Here's an expression with variables:  $[(4a + b) \times (c \div d)] - e$

What is the value of the expression if  $a = 2, b = 1, c = 6, d = 3, e = 7$ ?

2) Round to the nearest millionth: 4738194.8994978

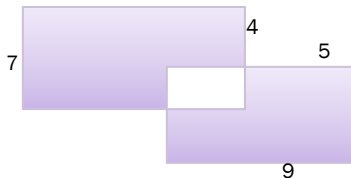
3) Which number doesn't belong and what is the reason?

7, 5, 13, 2, 17, 8, 11

**MathCore LEVEL F Challenge 1 (6th grade or higher)**

1) Which prime number between 15 and 40 leave a remainder of 3 when divided by 4 and, backwards, is also a prime number?

2) Find the area of the unshaded figure (unit length is given in diagram):



3) Let each letter of the alphabet stand for a number, so  $A = 1, B = 2, C = 3$ , and so on. Using the factors at the bottom of a factor tree for 715, make an English word.

## About us:

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