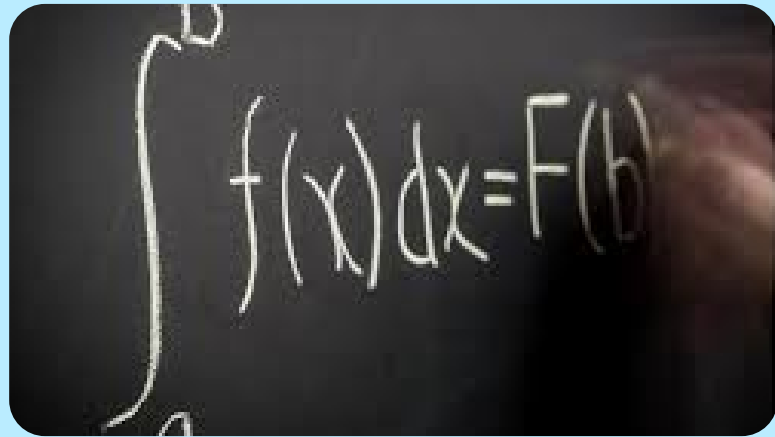


Math Newsletter

October, 2025

**SENIORS ARE UP
TO TAKE THEIR AP
CALCULUS EXAM**



**MIDDLE SCHOOL
STUDENTS ARE UP TO
HAVE SOME FUN ON
GEOMETRY - BUILDING
CITIES USING NETS AND 3D
FIGURES**

PISA

Programme for International Student Assessment



MIDDLE SCHOOL STUDENTS ARE DILIGENTLY PREPARING FOR THE PISA EXAM, EMBARKING ON A JOURNEY OF DEVELOPING CRITICAL THINKING AND PROBLEM-SOLVING SKILLS. THROUGH VARIOUS LESSONS AND INTERACTIVE ACTIVITIES, THEY ENGAGE WITH REAL-WORLD SCENARIOS, HONING THEIR ABILITIES IN MATHEMATICS, READING, AND SCIENCE. THEIR PREPARATION REFLECTS A COMMITMENT TO MASTERING KEY COMPETENCIES NEEDED FOR SUCCESS ON THE INTERNATIONAL ASSESSMENT.



MATH DEPARTMENT TEAM

H O D

MR.AHMED ELSAIED



About me:

I'm Mr.Ahmed, and I'm excited to lead the Mathematics Department. With years of experience teaching SAT preparation, Calculus, and various math courses, I'm dedicated to helping students build strong problem-solving abilities. As both a teacher and department leader, my goal is to create a collaborative and supportive environment that encourages academic success. I look forward to working with both students and staff to help everyone reach their full potential in mathematics.

MR. AKRAM ELHALABI

**HIGH
SCHOOL
TEAM**



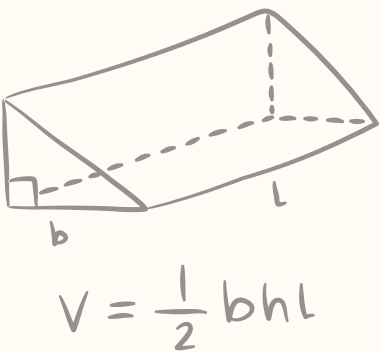
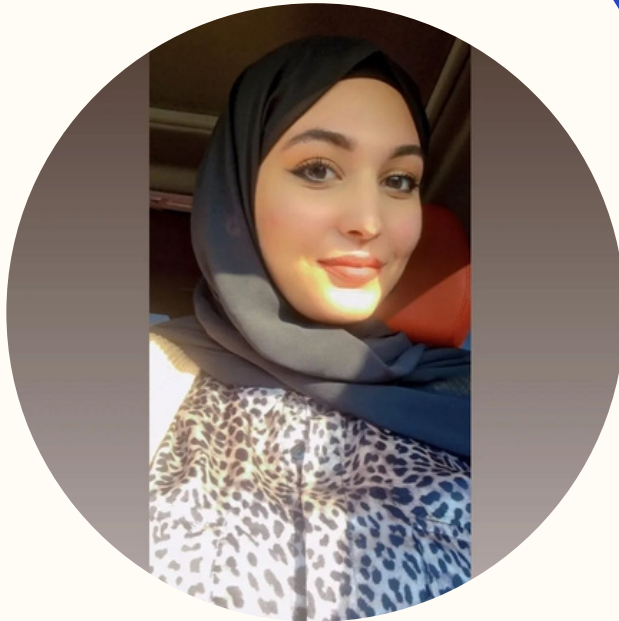
About me:

Akram El Halabi is a dedicated high school math teacher passionate about fostering mathematical understanding and critical thinking in students. In addition to teaching, he serves as the AP and SAT Coordinator, ensuring students are well-prepared for these pivotal assessments through structured guidance and support. His meticulous attention to detail extends to managing the school's timetables and balancing academic schedules to optimize student learning and teacher efficiency. With a deep commitment to both student success and the smooth operation of the school, Akram El Halabi plays a crucial role in shaping a productive and engaging educational environment.



$e = 2.718$
 $y = \cosh x$
 $y = \sinh x = \frac{e^x - e^{-x}}{2}$
 $A = \begin{vmatrix} a_{12} & a_{13} \\ a_{21} & a_{22} \end{vmatrix}$
 $V(rw) = \frac{h}{\sqrt{11}} \int_0^\infty e^{-hwr^2} dw$
 $x = b$
 $\sum_{n=0}^{\infty} \frac{x^n}{n!}$
 $\frac{f(x_{i+1}) - f(x_i)}{x_{i+1} - x_i + a^i}$
 $P = \sum_{i=0}^{\infty} x_i^i$
 $\ln = \sqrt{x}$
 $S_3 = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 0 & 1 \\ 0 & 0 & 1 \end{bmatrix}$
 $y = \pm \sqrt{1-x}$
 $\sum_{k=0}^m \binom{m}{k} z^k$
 $p(rw) = \int_0^\infty e^{-hwr^2} dw$
 $\frac{1}{2} \int_0^\infty \frac{dy}{1+y^2}$
 $y = \sqrt{2\sqrt{x^2-1}}$
 $S = \int_{-1}^1 f(t) dt$

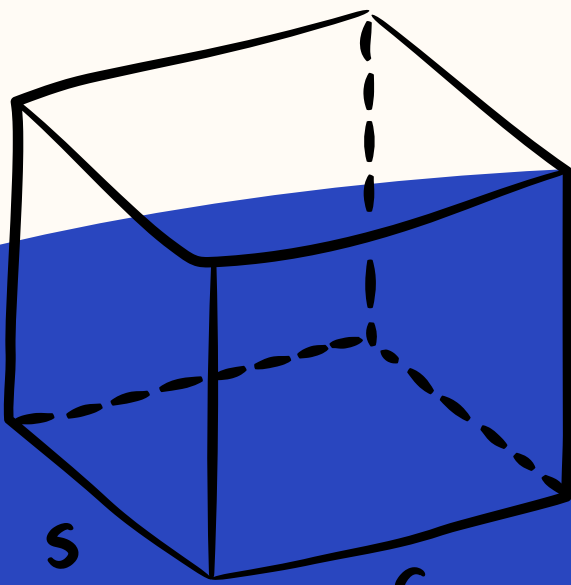
HIGH SCHOOL TEAM



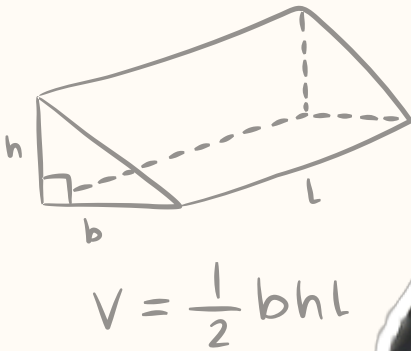
MRS. SARA SHAHROUR

ABOUT ME

My name is Sara Shahrou, and I am a middle and high school math teacher with over 10 years of experience. This year, I am excited to be teaching grades 8 and 12. I hold a master's degree in mathematics and have a deep passion for helping my students grow both academically and personally. My teaching philosophy centers on creating an engaging and supportive learning environment where students feel empowered to ask questions, explore new concepts, and take ownership of their learning. My goals for my students this year are to develop strong problem-solving skills and to build confidence in their mathematical abilities, ensuring they are well-prepared for future challenges.

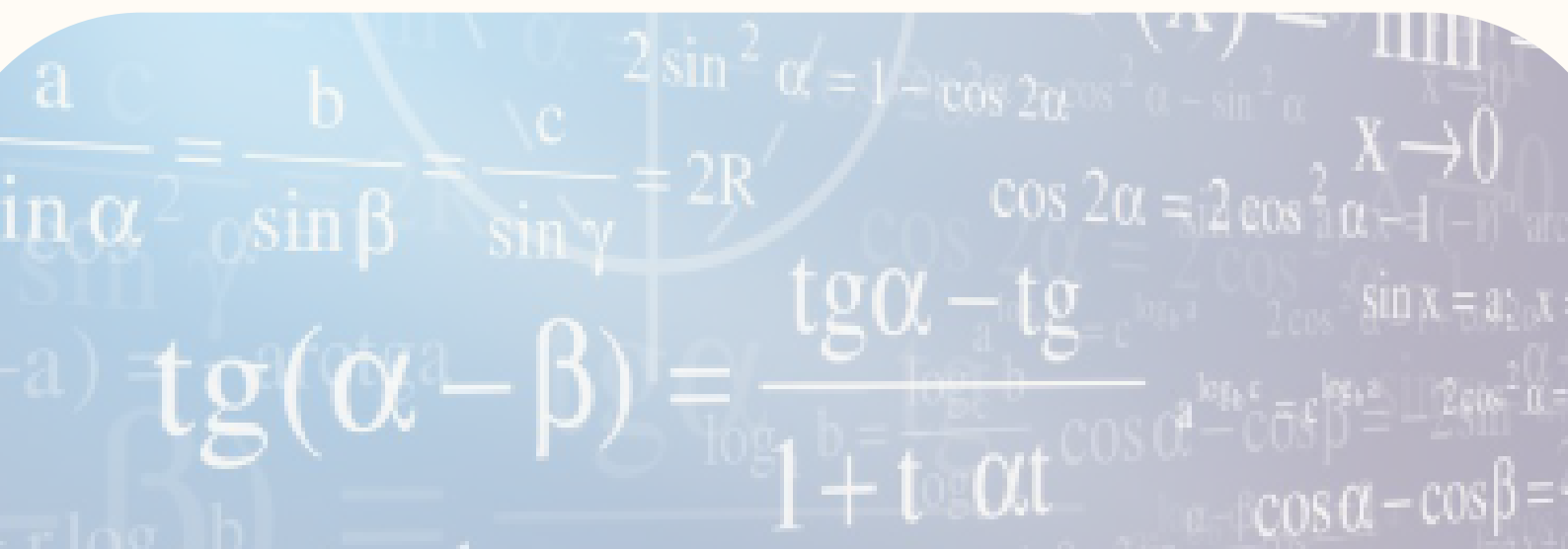


HIGH SCHOOL TEAM

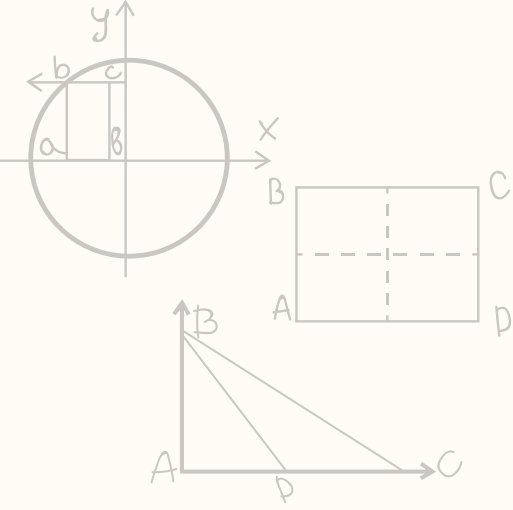


Mr. Waleed Osman

I have two goals for my students. First, I want my students to develop a conceptual understanding of how the math they learned has meaning in a broader context. Second, I want my students to walk away with greater confidence in their own mathematical abilities, better equipped to approach math successfully in the future. My teaching style aims to achieve these goals for all types of students. While my teaching philosophy will continue to develop with time, there are defining characteristics of who I am as a teacher: I employ multiple teaching approaches to optimize student learning, I strive to create an inviting classroom environment to engage students, and I challenge students' preconceived notions of mathematical ability and mathematics itself.



HIGH SCHOOL TEAM

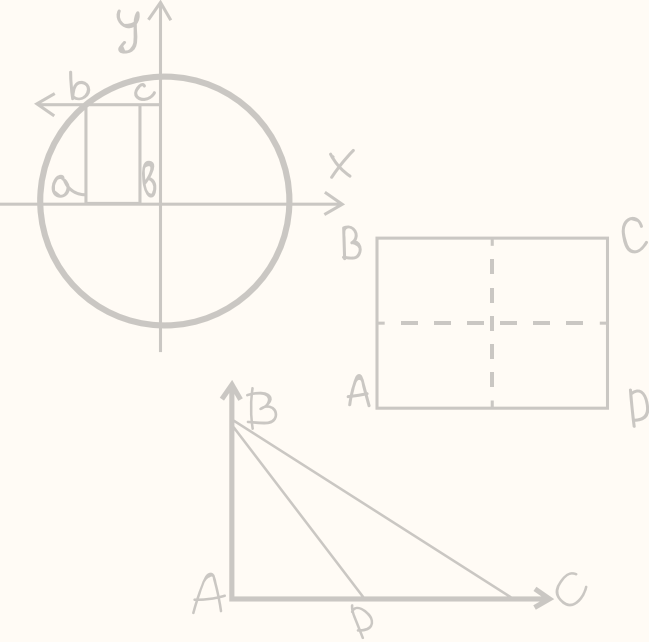


Mr. Ali Omar



I am an engineer with a Postgraduate Certificate in Education International (PGCEi). Currently, I teach high school mathematics, where I enjoy helping students connect real-world logic with mathematical concepts. The most rewarding moments for me are when students have that “aha!” reaction—when everything suddenly makes sense to them. I believe learning math should build both confidence and curiosity, and I strive to create a classroom environment where students feel encouraged to explore, question, and truly understand the beauty of mathematics.

HIGH SCHOOL TEAM



“Mathematics may not teach us how to add love or subtract hate, but it gives us every reason to hope that every problem has a solution.”



Mr. Faizan Amanji

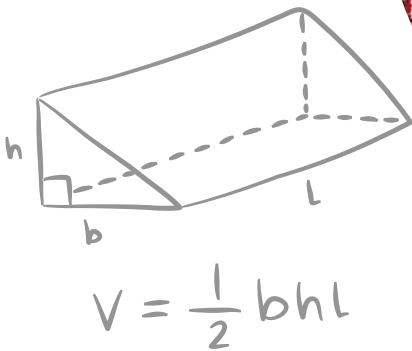
I am a dedicated high school mathematics teacher with experience teaching Grades 9, 10, and 11. Having worked in the UAE, Saudi Arabia and the UK, I bring a global perspective to the classroom and a strong focus on student engagement, critical thinking, and real-world problem-solving.

With a PGCE from the University of Bolton and a background in curriculum design and instructional leadership, I am passionate about creating inclusive, interactive learning experiences that help every student build confidence and succeed in mathematics.

MIDDLE SCHOOL TEAM

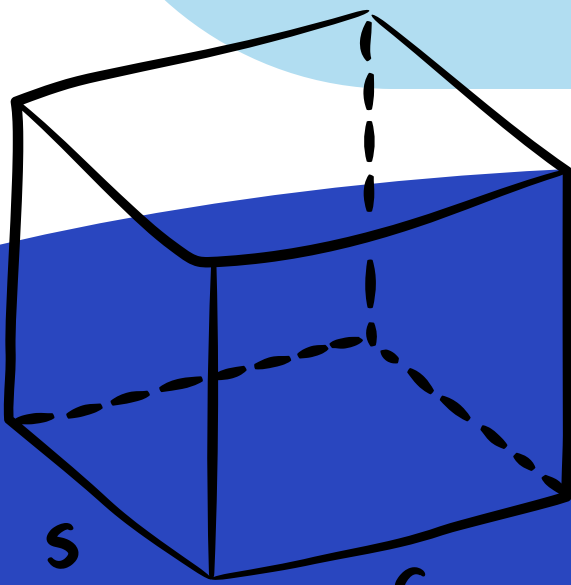


Mrs. Nishi Francis

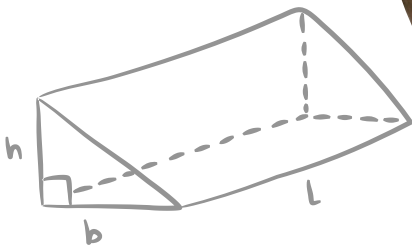


ABOUT ME

“Teaching is the one profession that creates all other professions,” a quote that deeply resonates with my journey as a Math educator. With degrees in both Mathematics and Education, I’ve spent the past 19 years helping students discover confidence and joy in Math. Since making Abu Dhabi my home in 2000, I’ve learned that when the environment is nurturing, students truly flourish. My teaching philosophy centers on making Math meaningful and approachable—encouraging understanding over memorization. I believe mistakes are stepping stones to mastery and use real-life applications, group activities, and interactive lessons to bring Math to life. My goal is to make every classroom experience positive, empowering students to see themselves as capable problem-solvers who can shape their own success.

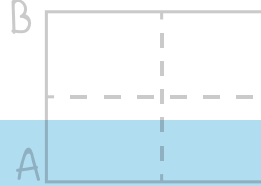
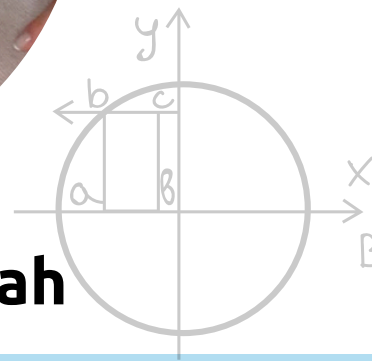


MIDDLE SCHOOL TEAM



$$V = \frac{1}{2} bhl$$

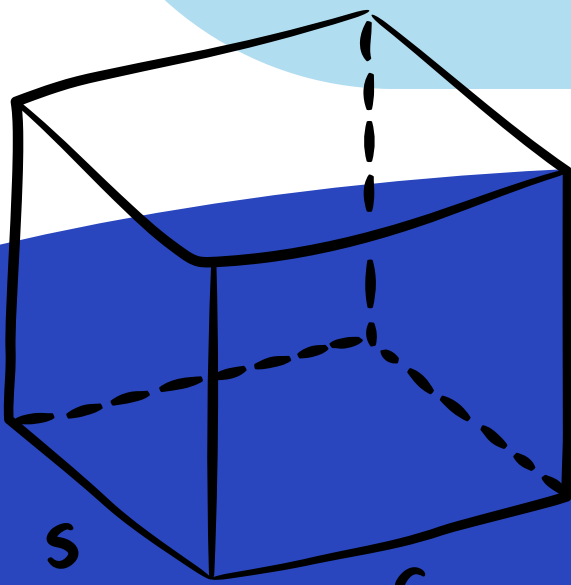
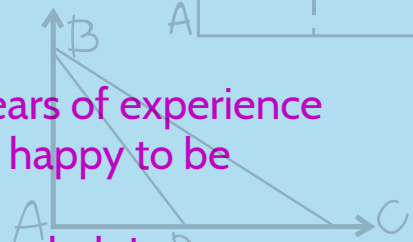
Mrs. Jennifer Farah



ABOUT ME

I am a dedicated mathematics teacher with several years of experience and a strong passion for teaching. This year, I am very happy to be teaching Grades 7 and 8.

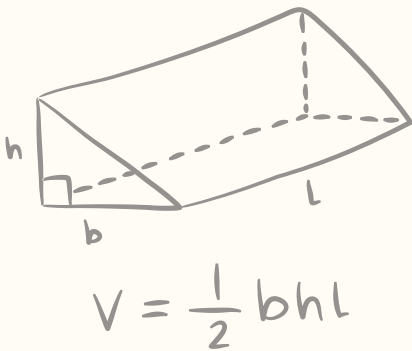
I strive to make every lesson meaningful and engaging, helping my students not only understand mathematical concepts but also develop a genuine love for learning. My goal is to make a lasting, positive impact on my students' academic growth and confidence in mathematics.



MIDDLE SCHOOL TEAM

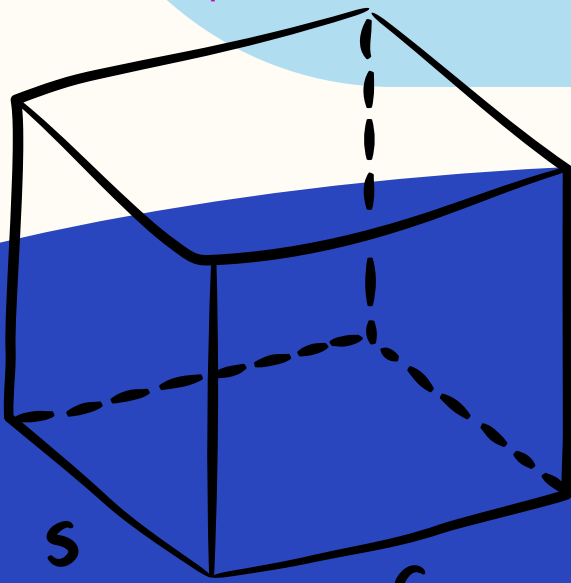


Mrs. Sherihan Hassan



ABOUT ME

Teaching is the profession that inspires every other,” a belief that has guided my journey as a Math educator. With a strong foundation in both Mathematics and Education, I’ve dedicated my career to helping students build confidence and develop a genuine appreciation for Math. I’ve seen firsthand how a supportive and engaging classroom environment can transform learning. My teaching philosophy focuses on making Math relevant, enjoyable, and understandable—encouraging students to think critically rather than memorize. I view challenges and mistakes as essential parts of growth and use real-world connections, group collaboration, and hands-on activities to make lessons come alive. My ultimate goal is to empower students to become independent thinkers and problem-solvers, ready to create their own paths to success.



MATH

$\left(\frac{a}{b}\right)^2$

ELEMENTARY SCHOOL TEAM GRADE 5



Grade 5 students are diving into the world of division and multiplication patterns using Plickers, an interactive and engaging tool. With each question, students use their Plickers cards to submit answers, allowing real-time feedback and fostering a fun, competitive atmosphere. This approach not only helps reinforce their understanding of numerical patterns but also builds confidence in problem-solving. By incorporating technology, students stay motivated and enjoy learning math concepts. Plickers makes practicing these skills both interactive and effective.

Grade 5 students are diving into partial quotients division, a method that breaks down division into manageable steps. This approach helps them build a deeper understanding of division by using estimation and subtraction, rather than traditional long division. Students are learning to think critically and solve problems more independently, boosting their confidence with larger numbers. By practicing partial quotients, they develop a solid foundation for mastering division. It's an engaging way to make math more approachable and less intimidating for young learners.



MATH

$\left(\frac{a}{b}\right)^2$

MIDDLE SCHOOL TEAM GRADE 6



In a focused classroom environment, students actively engage in a task centered on dividing fractions. Working collaboratively in small groups, they employ various strategies, including the use of visual aids and manipulatives, to deepen their understanding of the concept.

The atmosphere is one of enthusiasm, as students thoughtfully discuss different approaches and solutions with their peers. Their engagement is evident through their active participation, exchanging ideas and clarifying misconceptions. This collaborative approach fosters a productive learning experience, encouraging students to develop confidence in their mathematical abilities while mastering the skill of dividing fractions.



MATH

$$\left(\frac{a}{b}\right)^2$$

GRADE 7



In a focused and collaborative classroom environment, students actively engage in a task centered on using proportional reasoning to solve complex, real-world problems as part of their preparation for the PISA exam. Working in groups, they exchange ideas, analyze solutions, and critically discuss various approaches to each problem.

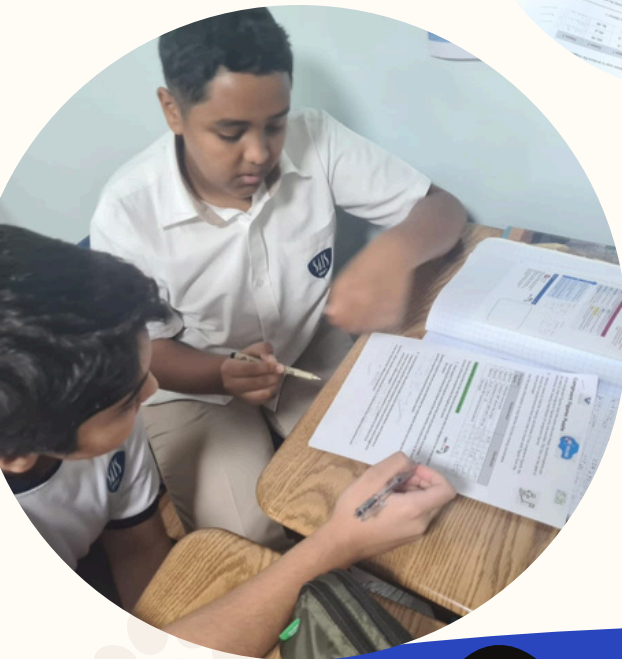
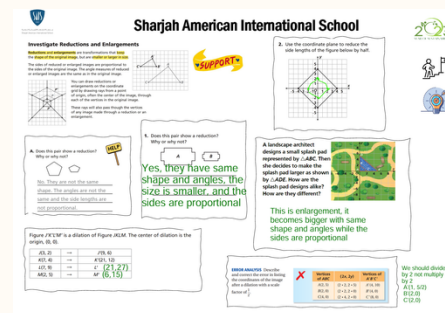
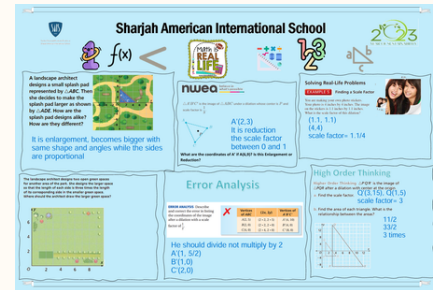
By applying ratios and proportions to scenarios such as scaling recipes or calculating distances, the students demonstrate their ability to connect mathematical concepts to practical situations. Some create diagrams to visually represent their reasoning, fostering deeper understanding. The atmosphere is one of collective learning and intellectual curiosity, as students refine their problem-solving skills and enhance their preparedness for the upcoming exam.



MATH $\left(\frac{a}{b}\right)^2$

MIDDLE SCHOOL TEAM GRADE 8

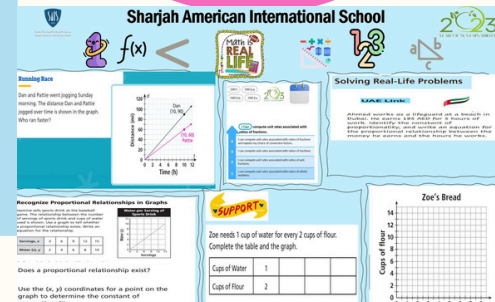
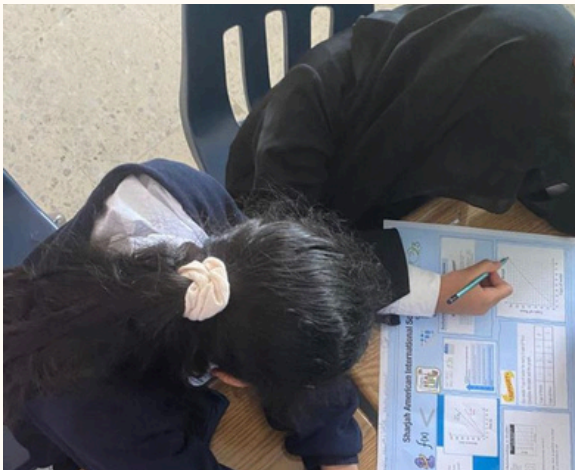
In the recent Grade 8 math period, students engaged in a differentiated activity focused on transformations, specifically dilation, and exploring similar figures. The students worked in groups to create posters illustrating key concepts of dilation and its application to real-world problems, including those linked to the UAE. Each poster included critical thinking questions and error analysis tasks to deepen their understanding. The activity encouraged students to not only demonstrate their knowledge but also to analyze common mistakes and challenge themselves with higher-order thinking problems, making math both interactive and meaningful.



MATH $\left(\frac{a}{b}\right)^2$

MIDDLE SCHOOL TEAM GRADE 7

During a recent Grade 7 math lesson, students participated in a differentiated activity centered on ratios, unit rates, proportions, and their applications. Working collaboratively in groups, they designed posters that showcased essential concepts of unit rate and applied them to real-world scenarios, including examples relevant to the UAE. Each poster featured critical thinking questions and error analysis tasks to enhance their understanding. This activity not only allowed students to demonstrate their knowledge but also encouraged them to analyze common mistakes and tackle higher-order thinking challenges, making mathematics both engaging and meaningful.



HIGH SCHOOL



Fit To Be In School

news, announcement

It's the perfect time to start a new journey, one where you enjoy math and have fun doing it! Join us for some exciting events in our upcoming math activities. Watch out for more details.

[read more](#)



Reminders



For Grade 9 please remember to register for the Mental Math World Cup 2025 ASAP to get access to sample questions & referral Materials, Access to 4 game modes, Free Online Webinars on Mental Math and more. Don't forget to download the mobile app. <https://livemcl.com/checkout/>



After School Activities



Supporting classes



SAT Classes

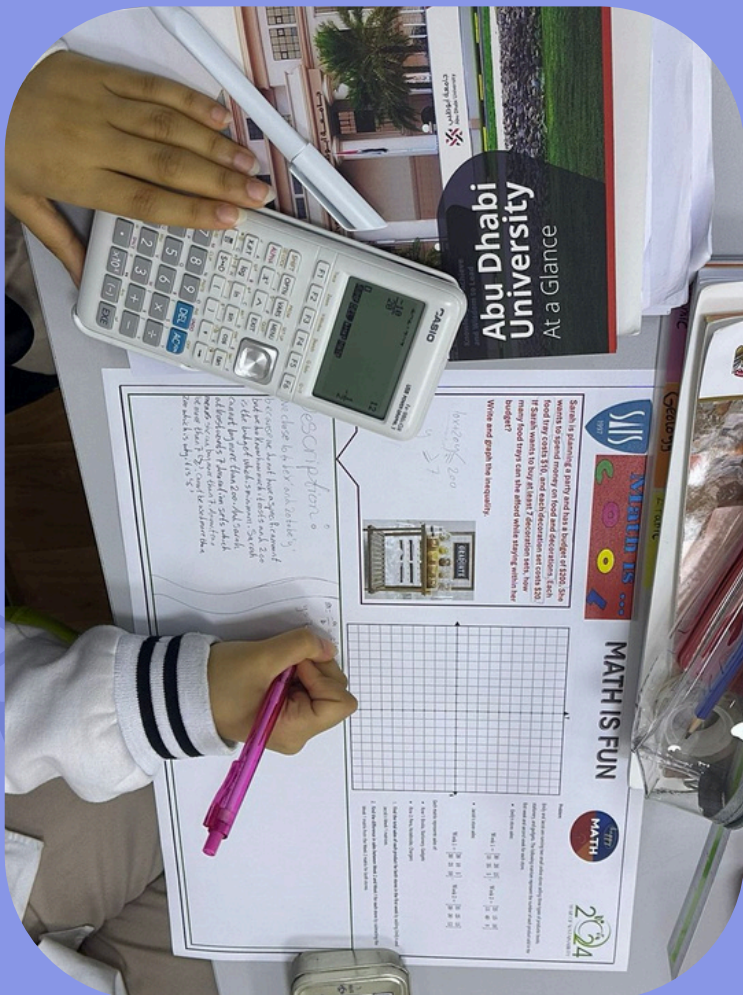
CAREER DAY

A LIFE APPLICATION OF USING TRIGONOMETRY TO FIND THE HEIGHT OF A BUILDING USING TRIGONOMETRIC FUNCTIONS. RELATING MATH TO ENGINEERING.

ACTIVITIES

sharing is caring

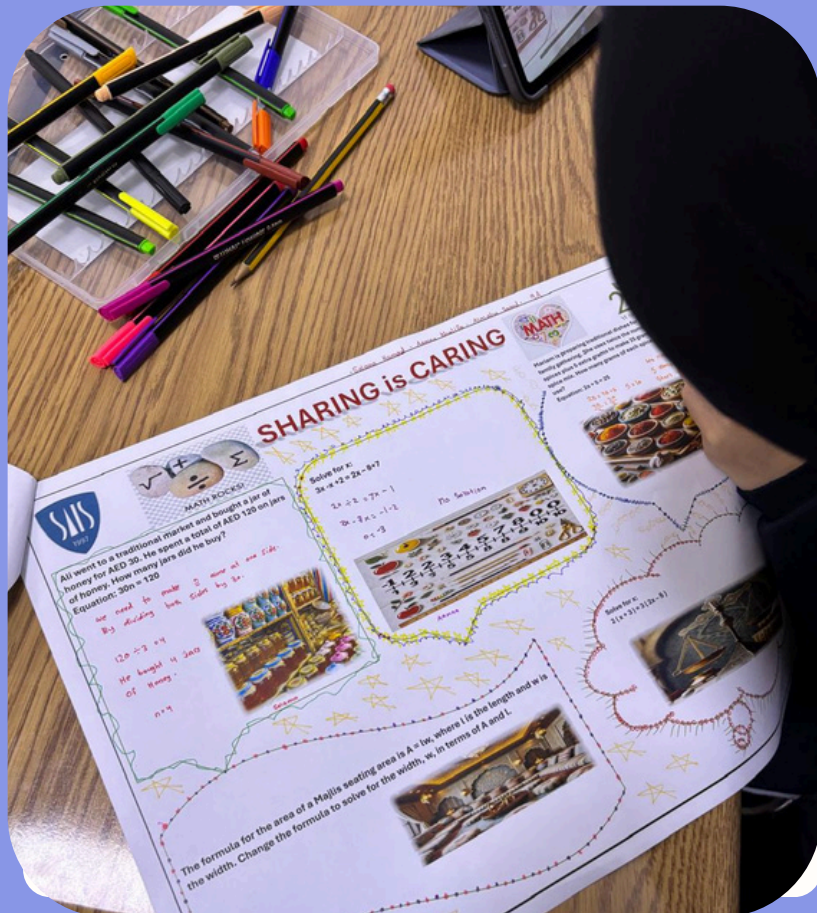
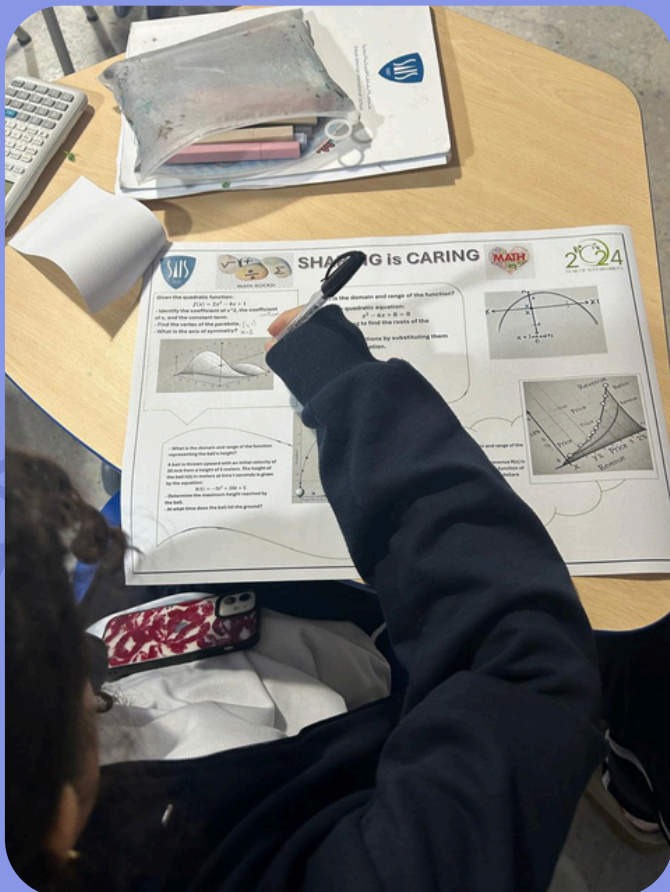
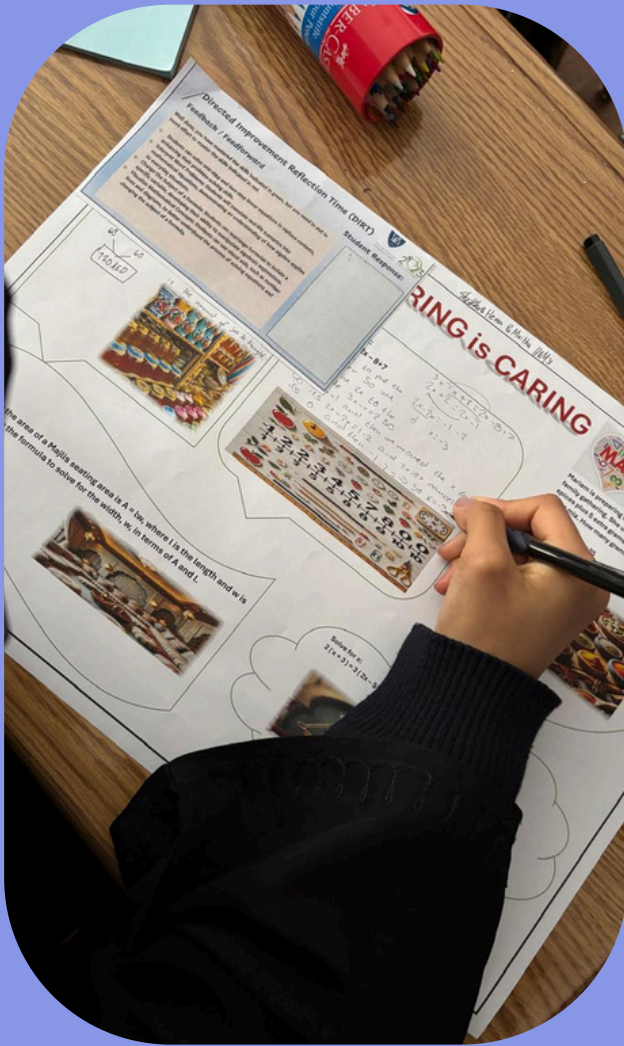
The "Sharing is Caring" activity was designed to encourage students to work together and share their mathematical insights. It highlighted the value of collaboration, where every student's contribution was essential to finding solutions. This approach helped students see the importance of teamwork in solving complex problems. By sharing their ideas, they learned from each other and built a supportive learning environment. The activity was a true reflection of AUE's commitment to fostering both academic growth and community spirit.



ACTIVITIES

sharing is caring

At UAE, we value both learning and community. Our "Sharing is Caring" activity encouraged students to solve math problems together, highlighting teamwork and the importance of sharing knowledge. By collaborating, students not only solved challenging problems but also built stronger connections. This activity truly reflected the spirit of cooperation that defines AUE.



ACTIVITIES

MATH is FUN

The "MATH is FUN" activity was designed to encourage students to work together and share their mathematical insights. It highlighted the value of collaboration, where every student's contribution was essential to finding solutions.

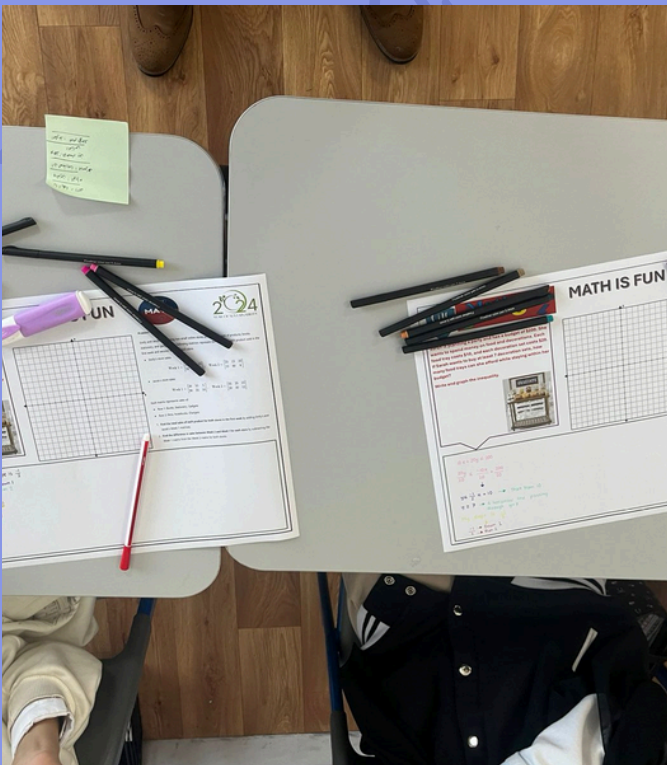
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ACTIVIES

MATH is FUN

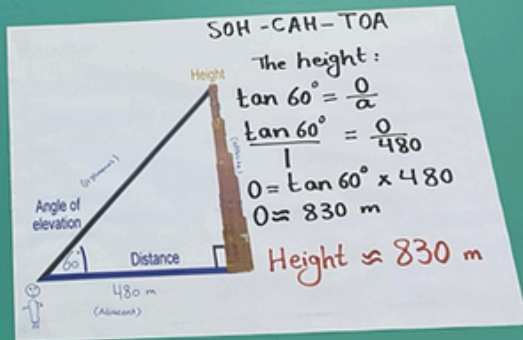
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Application of trigonometry

Height of Burj Khalifa using $\tan \theta$

A man is standing 480 meters away from Burj Khalifa, with angle of elevation to be 60° . Find out the height of Burj Khalifa



Height of Burj Khalifa using $\tan \theta$

A man is standing 480 meters away from Burj Khalifa, with angle of elevation to be 60° . Find out the height of Burj Khalifa

Application of trigonometry

SOH - CAH - TOA

The height:

$$\tan 60^\circ = \frac{O}{A}$$

$$\tan 60^\circ = \frac{O}{480}$$

$$O = \tan 60^\circ \times 480$$

$$O \approx 830 \text{ m}$$

Height $\approx 830 \text{ m}$

Subject: Math Teacher: Mr. Rami

Example 1: Determining the Angle of Elevation

A building that is 25 meters tall casts a shadow 20 meters long. Find the angle of elevation of the sun to the nearest degree.

Name: Fahad Baid

Answer: $\frac{SO}{H} = \frac{CA}{A} = \frac{TO}{O}$

$\tan \theta = \frac{O}{A}$

$\tan \theta = \frac{25}{20}$

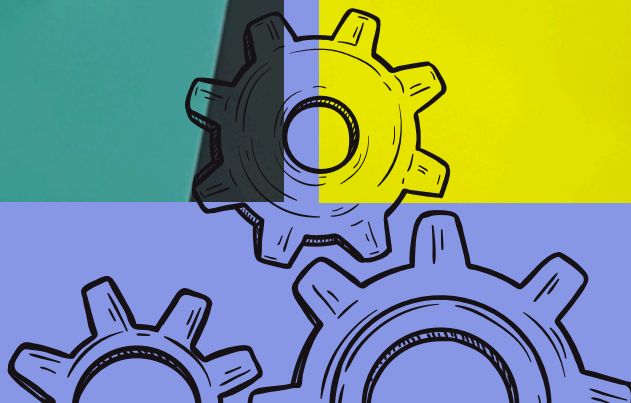
$\tan \theta = \frac{5}{4}$

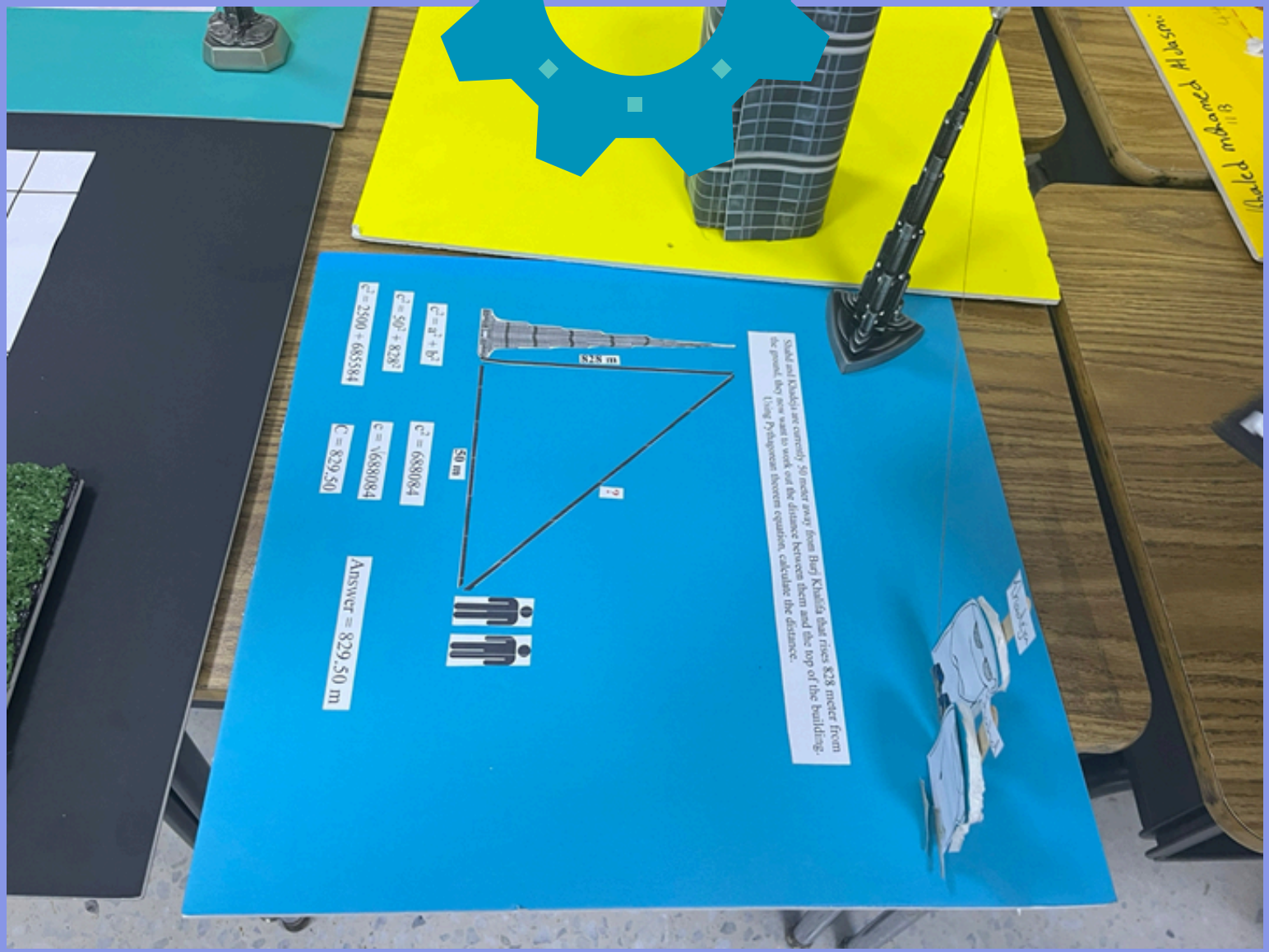
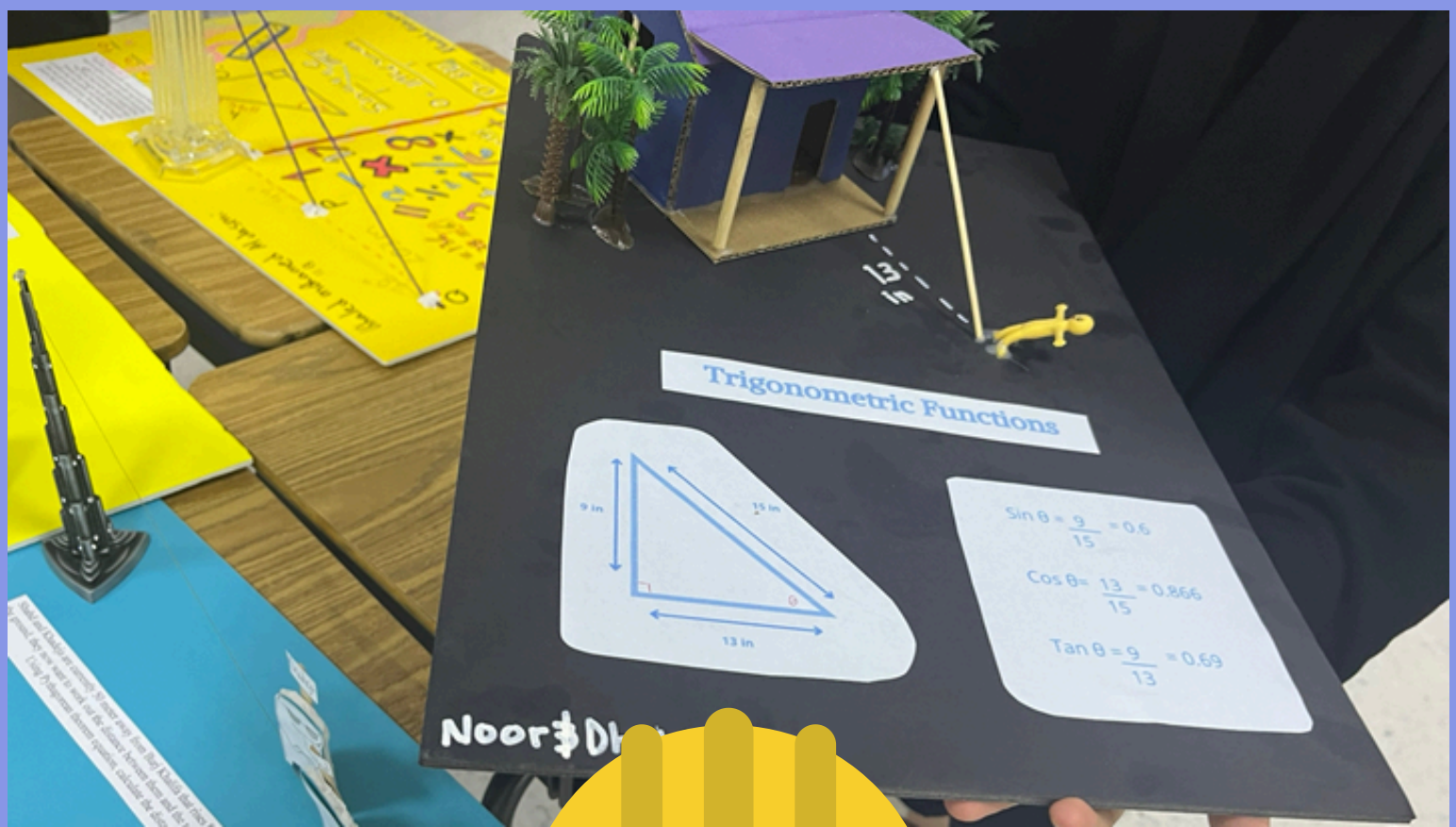
$\tan^{-1} = \left(\frac{5}{4} \right)$

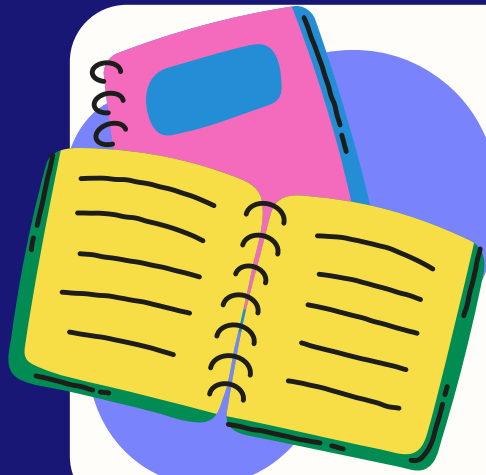
$\theta = 51^\circ$

(copy to class)

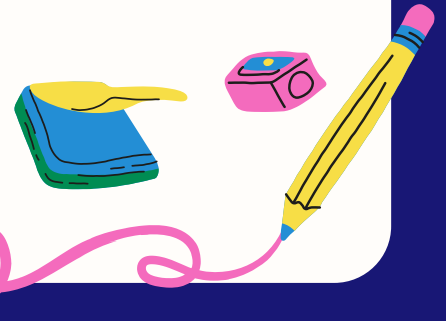
W







3D shapes in real-life!



Middle School Students

Building a mini-city project is a fun and engaging activity for middle school students to help discover the world of math around us .. Did you know that geometrical concepts are used in real-life to build sky-scrapers, bridges, cars, towers?!



CAREER DAY - MINI-CITY



Way to go, guys! It's going to be an interesting week, but we still have a lot of work to do. So let's work hard and have fun!

