
PIRATE

Editorial

" The essence of mathematics lies in its freedom. " — Georg Cantor

Dear Readers,

It's a strange feeling, writing my very first editorial—and for a math magazine, no less. But this isn't just about equations, formulas, or exams. It's a space where my mind finds quiet, where chaos clears and calm sets in.
In a world buzzing with notifications, deadlines, distractions, unchecked to do lists, math has always been my anchor. When everything feels too loud, a simple problem—an unfamiliar puzzle or a question that demands logic—can bring me peace. While many turn to music, art, or journaling for relief, I turn to numbers. To me, solving a problem is like untangling a knot—satisfying, focused, and surprisingly soothing.

Math for me is not top scores or proving intelligence, it is the rush I get when I crack a tough question or see patterns unfold—It's thrilling. It's human. And ironically, in an increasingly digital world, math helps keep my brain more alive and less robotic. It sharpens my thinking, stretches my attention span, and grounds me when I'm feeling anxious or restless.

Now, I know math isn't everyone's cup of tea. For many, it's the very thing that causes anxiety. It's feared, avoided, and often misunderstood. That's exactly why we've put together this issue—not to add to the pressure, but to offer a different perspective. Math doesn't have to be scary. It doesn't have to be just about calculus, trigonometry, or textbook problems. What we study at school is just a tiny window into a vast and beautiful world of patterns, logic, and discovery.

Math is not just for the top scorers. It's for the inquisitive ones, thinkers, explorers, and everyone in between. I cannot end this without thanking my Editorial board and expressing my deepest gratitude for Mr. Vishal Rawat and all the teachers of the Math Department. This issue is a celebration of that bigger picture. It's an invitation to explore, question, and maybe even enjoy math in ways you haven't before. Whether you're someone who loves numbers or someone who dreads them, I hope you'll find something here that sparks curiosity or brings a smile.

Editor-in-Chief
Shaurya Agarwal

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LIFE AT 10^{100}

5:50 AM– The moment when 87% of the Welhamites rise at the sound of the morning bell only to contemplate an imaginary infirmity that they could choose as an excuse to skip morning sports. Unfortunately, they're faced with disappointment when they find themselves beginning their day by spending "quality time" with the field.

Meanwhile, the lucky 3% manage to fake an unusual condition. In comparison, the other 10% have given up all hope and resorted to bunking for the sake of mental and physical well–being.

On an average weekday, a Welhamite investigates the perfect time interval when she can sneak in even a minute of rest, sometimes even finding solace in the assembly choir's lullaby, mastering the art of napping in her upright or now slouching position. This "desperation curve" not only leaves our teachers baffled but also follows what statisticians call a "bimodal distribution"—essentially having two distinct peaks. However, this does not change the perspective of any Welhamite who will forever claim to be sleep–deprived.

The probability of a Welhamite getting a free period is close to null, with every teacher coming in with pre–prepared prep work. While each considers their assignments to be the "bare minimum", the total workload exceeds that of tan 90 (undefined), with every assignment's deadline having a 100% chance of getting rescheduled.

Furthermore, our research also concluded that even on a fine, sunny Sunday—which is supposed to be our time to 'chill'—it somehow becomes the day when we finally acknowledge the harsh reality of our ever–piling workload. A Welhamite usually starts her day either by standing in a queue for her share of fries or, on rare lucky days, finding herself genuinely happy with her plate.

In our AII year, we always calculated the most strategic breakfast time when we could have our fries without finding ourselves doing yet another favor. However, 75% of the time, this proved to be unsuccessful thanks to an unplanned extension of our sleep cycle.

With the inter–house music and dance underway, a Welhamite often finds herself stuck in the perpetual loop – running from one practice to another. One moment you might see us strumming a guitar, the next we'll be dancing with ghungroos on our feet. (Fun fact: At this speed, we'd reach the moon in a year!)

Time management during inter–house is just like getting introduced to the concept of a 'googol' a large number i.e. 10 to the power of 100. More than 60% of us are directly or indirectly involved in practices, juggling to manage academics, sports, extracurriculars, and, obviously, the omnipresent load of inter–house.

A Welhamite's social life is like a mythical variable—the elusive 'x' with no fixed value. The speed at which gossip travels in our school is unmatched, with 70% of it packed with spicy content and special mentions of our neighboring schools, while only 10% holds any factual accuracy (all thanks to our highly professional stalking abilities, of course).

As fellow data Analysts, we can positively say that no calculator can help us quantify the statistical anomaly that is a Welhamite. But we are 100% sure every alumna would do anything to experience this chaotic but unforgettable life again.

–Dhruvika Fatehpuria
Class 11

Escaped X, Found Y

The year was 10th grade. My only motivation to open my textbooks was the sweet, sweet thought: "This is the last time I ever have to solve a linear equation." Board exams came and went, and I danced out of the exam hall like I'd just been released from a 10-year prison sentence. The moment the ISC subject selection form appeared, I hit 'No Math' faster than you can say Pythagoras Theorem. Freedom, at last!

Or so I thought. Turns out , math is like glitter. You think you've gotten rid of it, but it keeps showing up in places you least expect — your bag, your hair, and in my case, every subject I took after dropping it. I gleefully abandoned math after 10th, thinking I was done with numbers forever. But then Economics arrived, all innocent and theoretical — until it casually whipped out Statistics and dropped standard deviation on my head. Suddenly, I was buried under cumulative frequency curves, Lorenz diagrams, and graphs that mocked me with every skewed axis. I felt personally attacked by Karl Pearson.

And just when I thought I had survived, along came Accountancy — the ultimate betrayal in a blazer. Ratios, percentages, and balance sheets started haunting me like math in disguise. Gross Profit Ratio? Net Profit Ratio? I thought I was done profiting from anything math-related. But here I am, crunching numbers like a part-time accountant who never signed up for the job.

I now spend an embarrassing amount of time figuring out how to calculate 15% of 1,200, only to end up with three different answers — and a calculator that silently judges me.

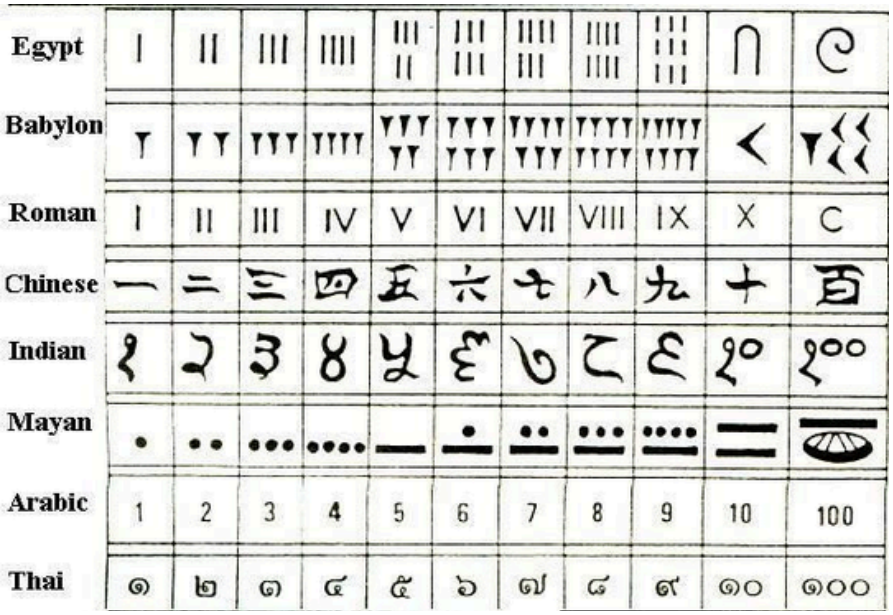
Ironically, I now wish I'd stuck with math. If I'm going to suffer anyway, I might as well have had more college options to show for it.

To my juniors thinking of dropping math: Don't. Unless you're also ready to ghost Economics and Accounts. Because math, my friends, is like a bad breakup song – it'll play in the background of every subject you thought was safe. In fact, I strongly believe the school owes me a trophy – "For Exceptional Endurance in Doing Math... Without Taking Math."

I dropped math. But math? It never dropped me.

- Nirja Karnani
Class 12

Multilingual Math



Numbers are the same in every language, but the way we say them? That's a whole new story. In English, we've got it pretty easy with "one" and "two." Meanwhile, in Spanish, it has a rhythmic flow like "uno" and "dos," adding a bit of flair. "Un" and "deux" in French are fancy enough to make you feel sophisticated while doing math. But if you dream about croissants, well, that we can't help. Japanese keeps it zen with "ichi" and "ni." And let's not forget Hindi, where numbers roll off the tongue like a Bollywood dance. In the end, math is just better when it's speaking in a few different accents!

THE EQUATION ALCHEMIST

Masaki Kashiwara has won the 2025 Abel prize, sometimes called the Nobel prize of mathematics, for his work on algebraic analysis. The 78-year-old mathematician was honoured for "his fundamental contributions to algebraic analysis and representation theory, in particular the development of the theory of D-modules and the discovery of crystal bases," the Norwegian Academy of Science and Letters said. At the heart of it is his theory of D-modules, which sounds super technical, but here's the big idea: he figured out how to use algebra to solve deep problems in analysis (things like differential equations). Until Kashiwara came along, those two areas barely spoke the same language. His methods built a bridge between them — and that bridge has changed the way modern math is done.

His work showed that you could study solutions to these equations by understanding the algebraic structure behind them turning complicated, messy problems into ones you could solve using the logic of algebra. This idea became a foundation for modern algebraic analysis and changed how whole fields approach their research.

Early in his career, under the mentorship of Mikio Sato, Kashiwara dove into this crazy deep concept called micro-local analysis, basically zooming into mathematical structures at an insanely fine level. Later, he introduced crystal bases — a beautiful way to simplify the super complex world of quantum groups, something that even impacts parts of physics today.

Kashiwara's work isn't just smart — it's visionary. It opened doors to new fields, made tough problems solvable, and influenced everything from pure math to quantum physics.

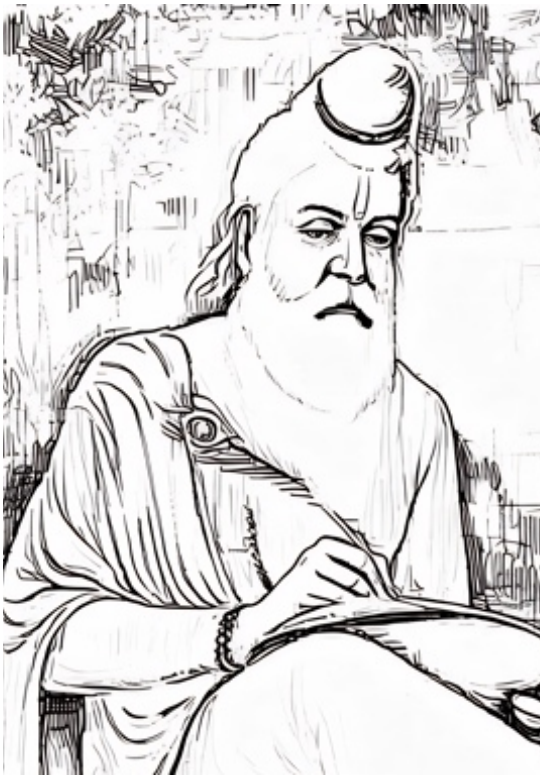
He's the first Japanese mathematician to win the Abel Prize, and will be honored at a ceremony in Oslo this May. It's incredible to see someone whose work has quietly redefined modern mathematics finally get the recognition he deserves.

-Shanvi Mittal
Class 12

MATH-A-GENIUS

Baudhayana (cira 800 BCE) was a brilliant mathematician who probably just wanted to build perfect holy structure but accidently ended up discovering key mathematical principles . Imagine trying to make a simple holy structure and oops , you invent the Pythagoras theorem , centuries before Pythagoras himself ! His Sulba Sutra were basically ancient DIY guides for priest , but hidden in them were deep mathematical gems – like how to calculate square roots , how to turn a rectangle into a square , and even an early version of pi . Who knew holy structure construction could be so mathematical ?

Despite his genius , Baudhayana remains relatively unknown today . Maybe because he did not brag enough ? Or maybe because history books gave all the credit to the Greek . Either way , his works prove that sometimes in trying to solve everyday problems you might just revolutionize mathematics without even meaning to !



-Dhanve Goyal
Class 7

Calculated Couture

Geometry and mathematics are often seen as academic, yet they're central to one of the most creative industries—fashion. From the flare of a dress to the sole of a sneaker, math shapes how design balances style with function.

Apparel design begins by converting flat fabric into three-dimensional clothing. This transformation depends on geometry, measurement, and spatial reasoning. A flared dress, for example, isn't just aesthetic—it's a geometric challenge. Designers calculate radii and circumferences of circles to determine cuts, with apex angles controlling fullness and arc lengths setting hemlines. These ensure graceful draping and symmetry.

Proportion, scale, and symmetry guide garment construction—seams, pleats, and placement of features like collars and waistlines often follow the golden ratio. The result? Garments that flatter as well as fit.

Footwear design also relies on math. Sneakers use pressure models and vector analysis to reduce joint stress, while parabolic soles absorb shock. High heels demand knowledge of torque and balance to ensure stability and proper weight distribution.

Math even defines surface design. Patterns like plaids and florals use geometric transformations and tessellations, requiring precise calculations to align across seams. CAD software uses algorithms to simulate how fabric stretches and folds.

Sneakers especially showcase math-driven innovation. Brands like Nike use computational geometry to design for performance and injury prevention. Mesh layouts, lug shapes, and airflow dynamics stem from data analysis.

Ultimately, fashion is math in motion. It's where equations become curves, stitches, and patterns. In fashion, math isn't behind the seams—it is the seams.

-Ananya Thakkar
Class 11

WHEN NUMBERS LIE

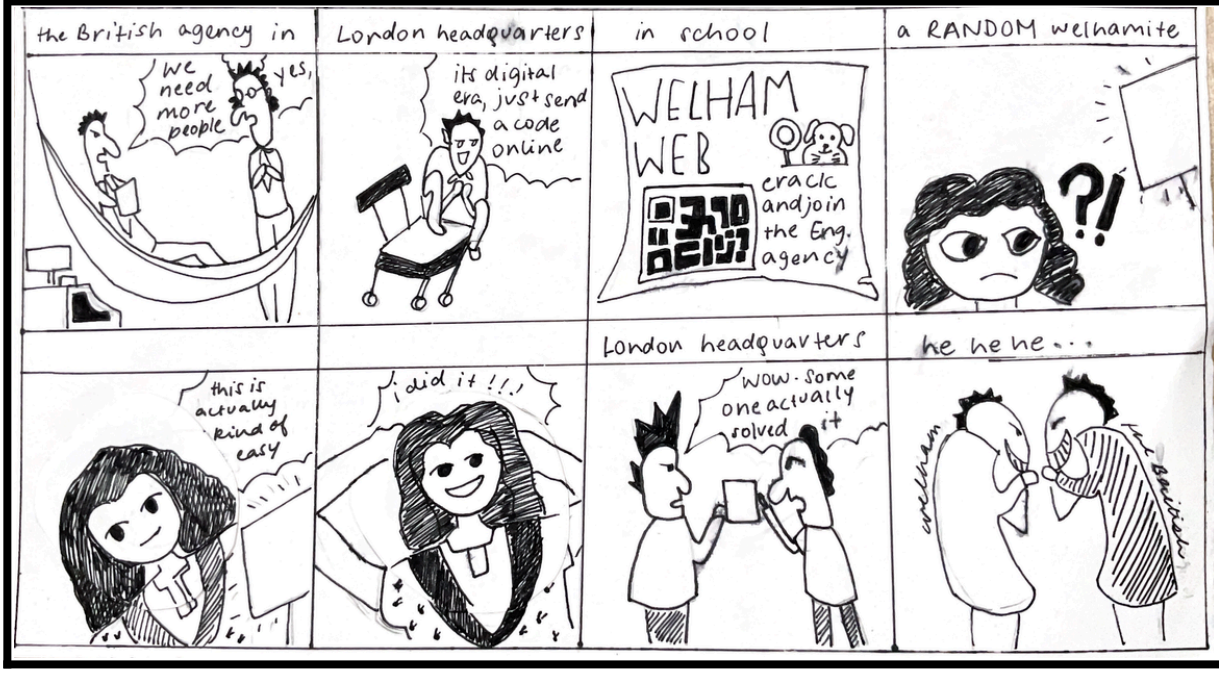
Proficiency in statistics has always been considered an ideal optimistic misinterpretation but their manipulation is often the cause of the most profound and extreme ethical dilemma. When numbers are changed, displayed, or expressed in different ways to advance a particular reason, it is known as data manipulation a form of data. Thus, if it happens or is intentional, there is still such an exercise that creates a bias, and it erodes trust within research, policy, and decision-making.

Cherry-picking has always been a very convenient type of manipulation. It means taking out data that lends itself to a preferred conclusion while ignoring other data. An example could be a pharmaceutical company that emphasizes research showing very favorable aspects of a drug while hiding away the studies showing side effects, as it results in a misrepresentation of desired evidence by a drug to do quite well for safety. Yet another such type of manipulation is "p-hacking," where the researchers end up manipulating statistical analyses until however scientifically compromised such analysis is, one or more of the desired outcomes is called statistically significant. Other things further tweak the data, such as misleading visuals like truncated graphs or exaggerated scales—manipulating public understanding without even touching the numbers.

All these practices have far-reaching results. In public health biased statistical places mislead policies such that a faulty model underestimates the spread of diseases; in politics, manipulated data can sway elections or justify discriminatory laws; even academically, because of the pressure to publish, researchers may be tempted to stretch their findings to compromise the integrity of science itself. The consequences disproportionately harm vulnerable populations who rely on accurate data for advocacy and resource allocation.

From an ethical standpoint, manipulating statistics undermines truth and accountability. The public often sees numbers as objective truth, making them a powerful tool for agendas that may harm the common good. To prevent this, transparency in methods, peer review, and open access to data are essential. Statisticians have a moral duty to present data honestly and acknowledge its limits. When statistics are manipulated, it's not just the numbers that change—our perception of reality is distorted, weakening the foundation of informed decision-making.

-Bhumee agarwal
class 12



THE CODE THAT COUNTED

GEN-Z MATH

In the age of iced coffee and existential dread, where reels are edited with the precision of a math equation and budgeting apps have become our new financial advisors, mathematics is no longer just numbers on a page. It has transformed into something entirely different. Welcome to Gen-Z Math—an alternative logical system where procrastination is a performance strategy, memes are mentors, and every late-night study session is a leap of faith.

Take, for example, spending ₹10,000 on Travis Scott concert tickets. Say "YOLO" while purchasing, and suddenly—it's basically free. In this logic, the formation of core memories and screaming "FE!N" in the fan pit cancel out any trace of financial reasoning. If the vibes are high enough, the cost vanishes from the equation. That's the magic of Gen-Z Math: it's not something we just study—we live it.

Switching to another classic Gen-Z calculation: the Friendship Tax. If my friend is eating chips, we're eating chips. It's not theft—it's a loyalty metric. Sharing is caring, and in Gen-Z Math, chips are edible trust funds.

Then comes the emotional side of the curriculum. Crying before your Accounts exam? Panicking over your extended Math syllabus? That's not weakness—it's emotional investment. Consider it dedication in liquid form. Or say you plan to start studying at 5:00 p.m. and it's already 5:03—well, that window is gone. Now, motivation will arrive in about an hour. But complete one Pomodoro session, and you've earned a chocolate. One snack per session is a scientifically approved way to stop stress from eating your brain cells.

Let's not forget a favorite Gen-Z math skill: calculating discounts during Zara or Nykaa sales. Spot 30% off a ₹2,000 dress? That's ₹600 saved—in seconds. Sure, you didn't need it, but you walk out feeling like a Wall Street genius. And if you pay through UPI, does it even count as spending? If the money didn't leave your physical wallet, did it ever leave your bank account? Or is this just modern-day Monopoly?

Now, hear me out—adding clothes to your online cart? That's not spending. That's exploring possibilities. It's a sacred space where reality is paused, and you can dream freely. Financial commitment only begins at checkout. Until then, it's math, mood, and manifestation. We're just girls, after all.

-Riyanshi Bansal
Class 12

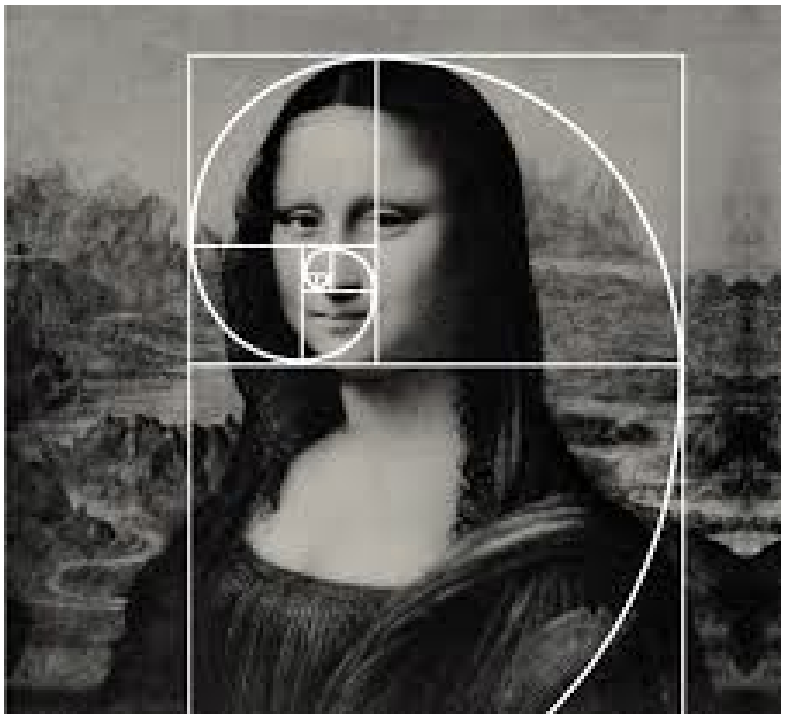
Pi Meets Picasso

When we think of mathematics, we often imagine complex formulas and abstract theories. However, its influence extends far beyond traditional boundaries. It serves as the very foundation of major fields that shape our world today – engineering, medical sciences, robotics, and artificial intelligence. Yet, mathematics is not confined to these areas alone. It is also expressed in more unconventional fields such as art, fashion, music, and literature.

In the world of art, M.C. Escher particularly stands out with his mesmerizing tessellations and intricate patterns. His work relies generously upon mathematical principles, using geometric precision and symmetry to create images that challenge perception. Through tessellations, he is effectively able to create infinite possibilities within a finite space.

Another example is Leonardo da Vinci's "Mona Lisa." Da Vinci applied the golden ratio to achieve balanced and harmonious proportions. This mathematical concept, often linked to aesthetic beauty, appears throughout art and nature. It states that when a segment is divided into two segments, the ratio of the whole segment to the longer one is equal to the ratio of the longer segment to the shorter one.

The fundamental principle of modern photography is based on mathematical concepts of balance and proportion. The "rule of thirds", a popular concept used in photography involves dividing an image into 9 equal parts using 2 horizontal and 2 vertical lines. By placing the key elements of the image along the lines or at their intersections, one's composition can be made captivating and visually appealing. Once a photographer perfectly aligns the subject within this grid, he is effectively able to capture an image that is well balanced. Raymond Queneau (ray-mo-kuh-no) and François Le Lionnais formed the Oulipo movement (Ouvroir de littérature potentielle) in 1960 to explore the interaction between literature and mathematics. Queneau is especially remembered for his book, "A Hundred Thousand Billion Poems" which literally explains itself by its title. The Oulipo movement emphasizes the use of constrained writing techniques like lipograms and palindromes.



Members like Georges Perec used constraints like avoiding the letter "e" or structuring novels on chessboard patterns. Mathematical concepts, including permutations, number sequences, and graphs, serve as literary frameworks, and instead of viewing constraints as limitations, Oulipo views them as a medium to reveal the untapped potential of literature.

In conclusion, we realize that mathematics is not just merely a part of STEM careers and is, if not heavily, subtly relied upon in these unconventional fields in the form of unexpected equations.

-Chitrani Singh & Vaanya Goel
Class 12

When Equations Earn Trophies

Mathematics is often perceived as a challenging subject; however, for four of our students, it has resulted in something extraordinary: three historic trophies that will become part of our school's legacy. These trophies symbolize hard work, dedication, and a passion for mathematics.

This year, we are proud to present three prestigious mathematics trophies to students to recognize their excellence in mathematics

H/434 Yashvi Agarwal (Class XI) was awarded the **Janet Holt Trophy** for achieving the highest overall percentage in Class XI. This trophy was donated by Mrs. Janet Holt, an exchange teacher from England, in 1990 to honor the school's commitment to excellence in mathematics education.

H/148 Jiya Marwah and *W/535 Varsha Dangwal (Class IX)* received the **Sheel Vohra Cup** for their consistent improvement from Class VIII to IX. This trophy, named 'Bond with Math,' was instituted in memory of Mr. Sheel Vohra, a legendary mathematics teacher from The Doon School, who taught in our school.

W-144 Prachi Goel (Class VIII) received the **Mrs. Radha Menon Cup** for excellence in Mathematics, achieving an impressive score of 96.72%. This annual award is presented to the highest scorer in Class VIII Mathematics. The trophy was established by Mrs. Indra Vijayan, a respected Mathematics teacher, in honor of her mother, Mrs. Radha Menon.

These trophies symbolize perseverance and intellectual growth, attained through countless hours of mastering concepts, solving problems, and overcoming self-doubt.

SUDOKU

	8		6		9	4		1
	1	7			4	3		6
			2	3	1	8		
8		2	1	6		9	3	
3		9		4	8			2
				2	3		4	
	3			9	2	1		4
4			3		6			
9			4	1				

Quick Sudoku Guide:

- Fill in missing numbers 1–9 in each row, column, and 3×3 box — no repeats.
- Start with obvious spots — rows/columns/boxes with most numbers filled.
- Use elimination to find where a number can or can't go.
- Repeat — every new number helps unlock more.

PS: First 4 people to come upto Shaurya with the solution will be given a chocolate.

Teacher's Note

Dear Math Magicians, Number Ninjas, and Calculator Commandos,

Welcome to this wonderfully nerdy edition of our Maths newsletter—a place where numbers come to life, X always has a reason, and word problems finally meet their match (you!).

Let's face it—Math has a bit of a PR problem. Somewhere between long division and quadratic equations, many students start wondering:

"When am I ever going to use this in real life?"

Well, I'm glad you asked—because the answer is: almost every day.

Yes, really. Think about it. From calculating your sleep schedule (or lack thereof), splitting the bill during trips, estimating how long you can scroll Instagram before you have to submit your laptop, to figuring out if the 70% off sale is really a good deal—Math is everywhere. It's like your best friend who doesn't talk much but quietly saves you from embarrassment and bad financial decisions.

And if you're thinking Math is just for scientists and engineers, think again. Today, Math is the secret sauce behind fashion design algorithms, movie animations, sports strategies, weather predictions, stock market moves, and even that suspiciously accurate YouTube recommendation. Want to become a pilot, architect, coder, detective, or even a meme analyst? (Yes, that's real.) Math has your back.

In this issue, our brilliant young writers explore how Math is not just a subject—it's a life skill, a problem-solving superpower, and quite possibly the only thing that stays consistent when Wi-Fi doesn't.

So go ahead—flip the pages, flex your brain, laugh a little, and maybe even fall in love with Math (or at least stop pretending to hate it). And remember:

"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." — Anonymous

Stay curious. Stay clever. And most importantly—stay odd (just like prime numbers).

Yours in equations and enthusiasm,
Vishal Rawat
Math Department – Where all the right angles meet!