Bal Bharati
PUBLIC SCHOOL
BHARATPUR, BHOPAL

hyp

θ

opp

adj

$\sin(\theta) = \dfrac{opp}{hyp}$

PRIME
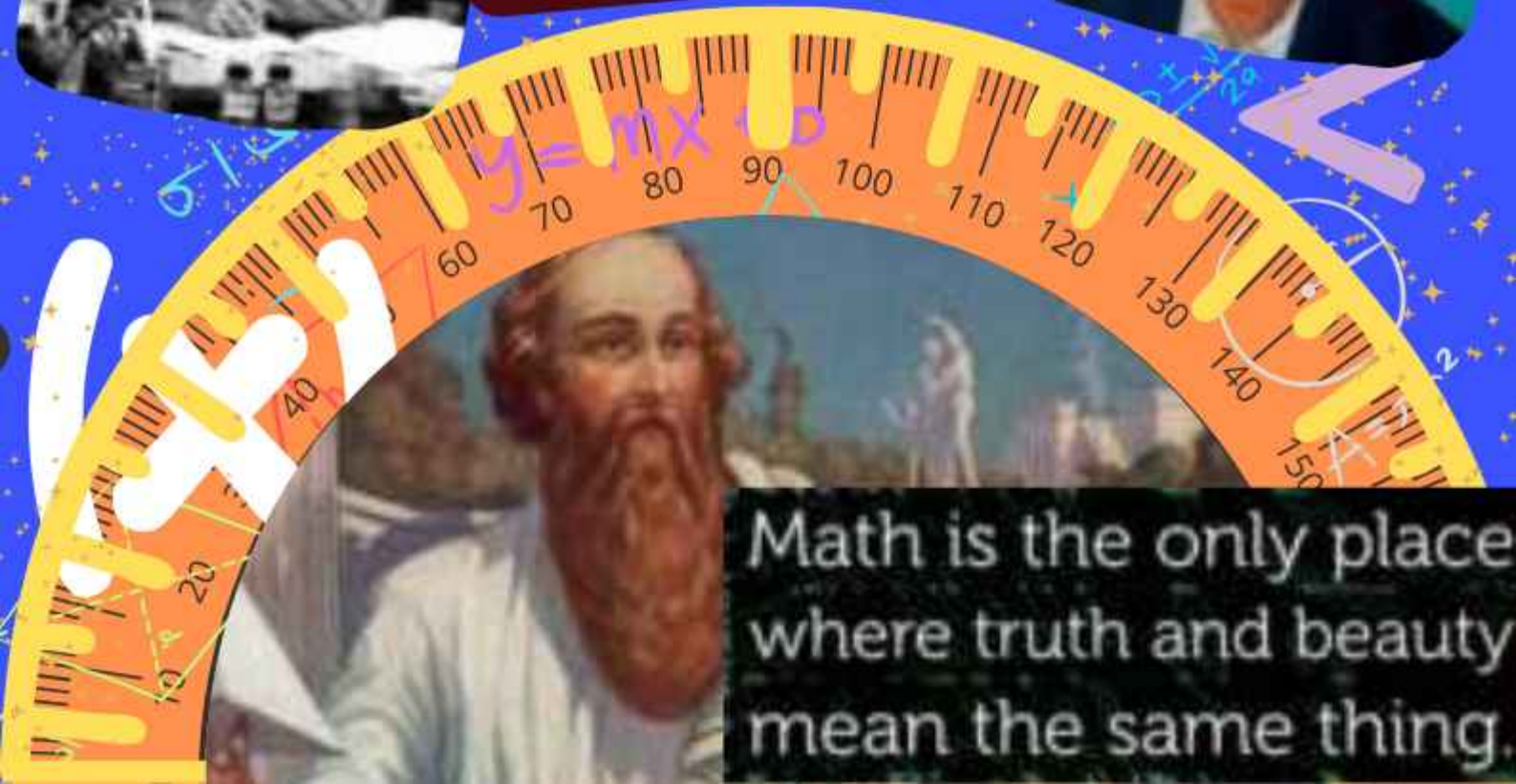
MATHS MAGAZINE

$y = mx + b$

60 70 80 90 100 110 120 130 140 150

40

20

Math is the only place where truth and beauty mean the same thing

From
The Principal's desk

I am delighted to extend my warmest greetings to all of you as we celebrate the launch of our annual Mathematics Magazine. Mathematics has always been close to my heart. It is not just a subject; it is a language that empowers us to unravel the mysteries of the universe and solve complex problems in various fields.

This year, I am particularly thrilled to share with you the transformative impact of the New Education Policy (NEP) on our approach to teaching and learning mathematics. The NEP advocates integrating technology into education and emphasizes the importance of experiential learning. In the realm of mathematics, technology can be a powerful tool.

We will move towards PowerPoint techniques that complement traditional teaching methods. Encourage an interactive and engaging learning environment via games and cultural activities, providing students with a multifaceted understanding of mathematical principles.

As we embark on this journey together, I want to reiterate that our purpose is not to create passive recipients of information but to create active leaders for tomorrow.

I am confident that with the innovative approaches outlined in the New Education Policy, our students will not only excel in mathematics but also develop a deep appreciation for the subject.

All the best!
-- Mr. Kuldeep Singh , Principal, BBPS Nishatpura

Message from the Academic Coordinator

Mathematics is not just a subject confined within the four walls of our classroom, it is a fundamental pillar of our daily lives, shaping the very essence of our existence. From calculating grocery bills to understanding complex algorithms, and the elegant symmetry in nature that powers our digital age, mathematics weaves its magic seamlessly into our daily lives, guiding us in every step we take.

In the ever-evolving landscape of the future, mathematical prowess will be the key to unlocking groundbreaking innovations, be it in technology, engineering, or economics. Embrace the beauty of numbers, for they hold the power to transform the ordinary into the extraordinary.

Mathematics, with its ancient roots tracing back to civilizations long gone, stands as a testament to the timeless beauty of logic and numbers. Yet, its allure is far from fading instead, it thrives in our modern world, infiltrating every facet of our existence. As we stand on the cusp of the future, the significance of mathematics becomes even more pronounced. It is the very backbone of technological advancements, propelling us into a future, where innovations once deemed impossible are now within our grasp.

Embracing the elegance of mathematical principles, we equip ourselves not just with formulas, but with the power to decode the mysteries of the universe. Let us embark on a captivating journey through the realms of addition, subtraction, multiplication, and division, exploring the intricate wonders of triangles, circles, and much more. Our aim is not to mindlessly memorize but to deeply understand the essence of these mathematical concepts. By grasping their significance, we empower ourselves to navigate the complexities of the world with clarity and precision.

Warm regards,
Mrs. Mradulata Singh , Academic coordinator

॥ यथा शिखा मयूराणां, नागानां मणयो यथा ।
तद् वद् वेदाङ्ग शास्त्राणां गणितं मूर्धनि स्थितम्

Like the crest of the peacock,
Like the gem on the herd of a snake, so is
Mathematics at the head of all knowledge.
Mathematics is the queen of all sciences.
Mathematics posseses not only truth but
supreme beauty.
We can't survive a single moment without maths.
It has made our everyday life easy and
comfortable. Maths is everywhere from numbers
to computer and technology. Learning maths
through fun games and activities makes it
interesting. Everyone should understand the
importance of maths. Students feel that maths
is a difficult subject, but it's a myth. Maths
once understood remains in our mind forever. The
only way to improve maths is practice. So we can
say that
" PRACTICE MAKES MATHS PERFECT"

PRADEEP BARDE, INCHARGE , MATHS DEPT.

MEET OUR EDITORIAL TEAM

MR.GOVIND CHAUHAN

MR.RANJEET PATHAK

MRS.KALPANA BARDE

MR. PAWAN SHARMA

MS. SHILPI DUBEY

MS. GUNJAN SACHDEV

Mathematics is not merely a subject; it is the very language of the universe, the key to understanding the world's intricate patterns, and the foundation upon which scientific and technological advancements rest. Its beauty lies in its precision, in the elegant symphony of numbers, formulas, and equations that unravel the mysteries of the cosmos and the complexities of our daily lives. Mathematics empowers us to solve problems, make informed decisions, and uncover hidden truths. It is the bridge between theory and practical application, the source of innovation, and the driving force behind progress in countless fields. Beyond its practicality, mathematics is an art form, inspiring awe with its depth, elegance, and the way it reveals the inherent order and harmony in our universe I am constantly reminded of the immense importance and timeless beauty of mathematics, and I am excited to share this passion with our readers.
-AYUSH MEENA (EDITOR)

**SOUMYA SINGH
(HEAD GIRL)**

**AYUSH MEENA
XII A**

**ANANYA CHAUDHARY
XII A**

MESSAGE FROM THE MATHS DEPARTMENT INCHARGE

Presenting the annual Maths magazine is an effort by the Maths department and the students of BBPS NISHATPURA BHOPAL under the guidance of respected Principal Sir (Mr Kuldeep Singh) and academic coordinator (Mrs Mradulata Singh). Through this annual magazine we aim to provide the moments, how teachers have transformed themselves to create a joyful, happy learning environment for the students. The magazine also shows the active participation of students in making maths learning interesting. It helps students in "Learning by doing and Experiential learning" which is focused in NEP also.
We hope this small endeavour will prove to be a delightful experience for you.

Mr. Pradeep Barde , Incharge , Maths Dept.

PRIMARY WING ACTIVITIES

LEARNING
MEASUREMENTS

MATHEMATICAL RANGOLI

3-D SHAPES

APPLICATIONS OF MATHEMATICS

Smart cities and urban planning

IT DEMONSTRATES HOW MATHEMATICS, URBAN PLANNING, SMART CITIES AND POPULATION GROWTH ARE KEY CONTEMPORARY TOPICS. THERE ARE CORE MODULES IN:

Geographic Information Systems & Science
Quantitative Methods
Smart Cities Context, Policy & Development
Urban Systems Theory
Spatial Data Capture, Storage & Analysis
Urban Simulation

EVERYONE NEEDS MATHEMATICS. WHEN A SUPERMARKET CHAIN WANTS TO OPEN A NEW STORE THEY NEED TO WORK OUT THE MOST APPROPRIATE LOCATION. THEY NEED TO DISCOVER HOW TO ATTRACT THE MOST CUSTOMERS WITHOUT BREAKING THE BANK. THE POLICE NEED TO CALCULATE HOW TO USE RESOURCES IN THE MOST EFFECTIVE WAY. TRANSPORT FOR LONDON NEEDS TO CALCULATE HOW TO MINIMISE DISRUPTION IF A LINE GOES DOWN.

FINANCIAL MATHEMATICS IS A BRANCH OF MATHEMATICS THAT FOCUSES ON ANALYZING DATA, SOLVING PROBLEMS AND MODELING FINANCIAL MARKETS.

WHO USES FINANCIAL MATHEMATICS?

• FINANCIAL ANALYSTS-:

FINANCIAL ANALYSTS ARE RESPONSIBLE FOR ANALYZING FINANCIAL DATA TO IDENTIFY POTENTIAL FINANCIAL OPPORTUNITIES OR RISKS.

• DATA SCIENTISTS-:

DATA SCIENTISTS ARE RESPONSIBLE FOR ANALYZING A VARIETY OF DATA TO SPOT PATTERNS AND TRENDS

• BANKERS-:

BANKERS ARE RESPONSIBLE FOR HELPING CLIENTS MAKE FINANCIAL DECISIONS, INCLUDING SAVING AND INVESTING.

• BUSINESS INTELLIGENCE ANALYSTS-:

A BUSINESS INTELLIGENCE ANALYST IS A FINANCIAL PROFESSIONAL WHO ANALYZES DATA TO PREPARE FINANCIAL REPORTS THAT CAN HELP COMPANIES USE PATTERNS AND TRENDS TO MAKE DECISIONS.

EXAMPLES OF MATH SKILLS

MONEY COUNTING

IN RETAIL, SOME INDIVIDUALS MANAGE CASH REGISTERS. AN INTEGRAL COMPONENT OF THEIR JOB REQUIRES THEM TO COUNT MONEY.

TIME MANAGEMENT

TIME IS ITS OWN CRUCIAL ELEMENT AT WORK. IN MANY JOBS, FOR SUCCESS TO OCCUR, PROJECTS MUST MEET COMPLETION WITHIN CERTAIN TIME FRAMES OR BY CERTAIN DATES.

ORDER ARRANGEMENT

IN MANY INDUSTRIES, EMPLOYEES ORDER SUPPLIES AND OTHER MATERIALS AS NEEDED. TO DO SO REQUIRES THEM TO COUNT CURRENT INVENTORY AND ASSESS HOW MUCH MORE OF EACH GOOD THEY NEED.

FUNNY

Be Rational
Get Real

i π

MATH JOKES

WHY WAS THE MATH BOOK FEELING OVERWHELMED?

IT HAD A LOT OF PROBLEMS.

MEMES

Why was six afraid of seven?
Because 7X9

The English book asked the Math book why he was so sad.

You know what he said?

"Because I have so many problems!"
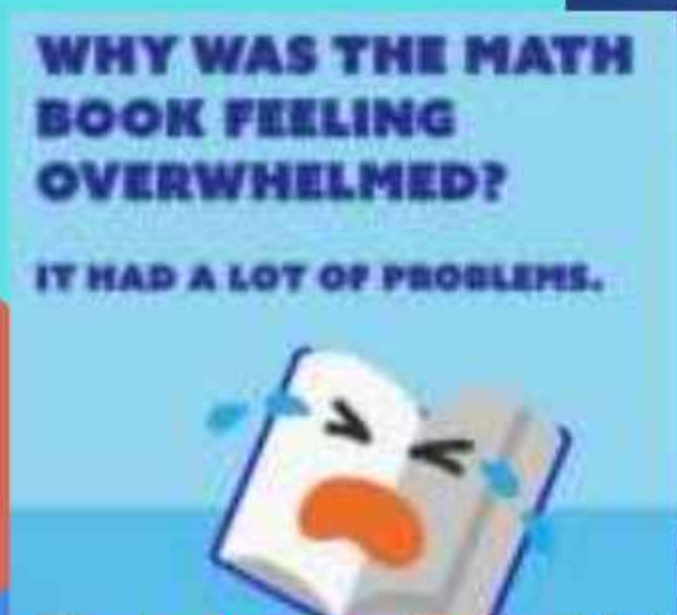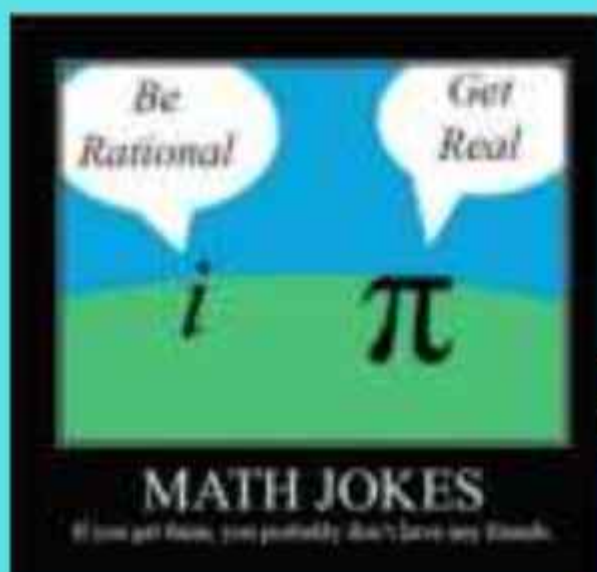
So many problems!
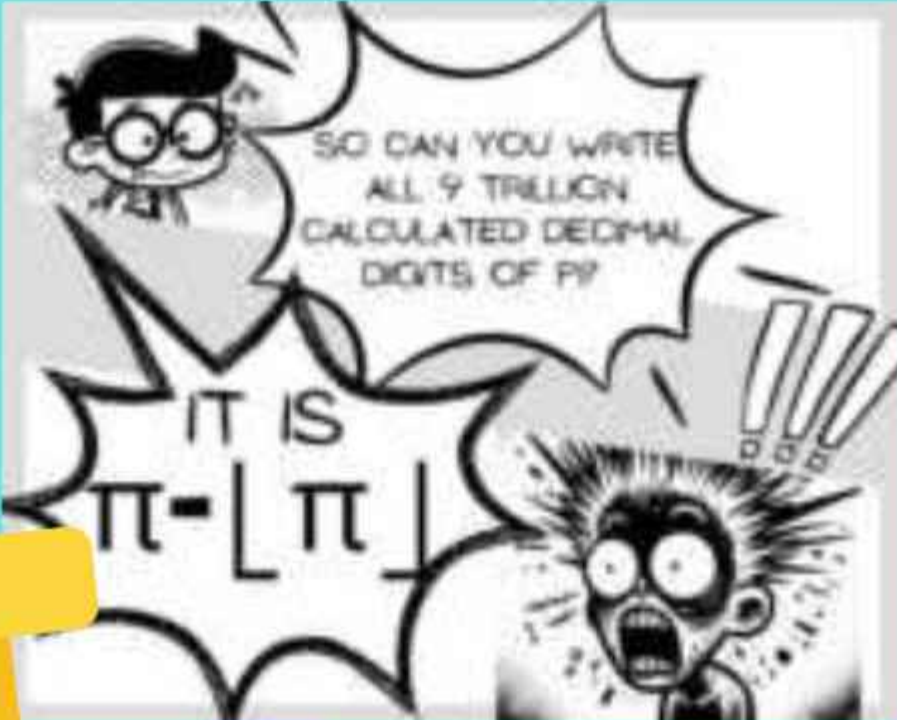
Made by
Ashish Meena
XI A

Explore and Learn
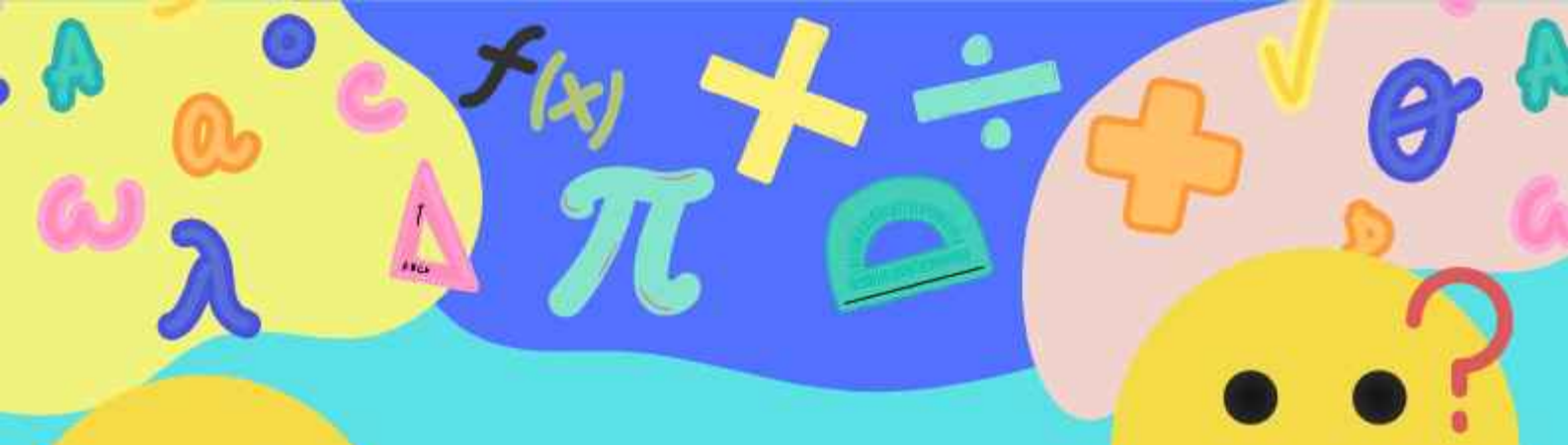
EXPRESSING OUR VIEWS

ON
"THE MAGNIFICENCE OF MATHEMATICS"

This article shows how mathematical operations can be correlated and included in our life.

MATHEMATICS OF LIFE

(+) OPPORTUNITIES AND HAPPINESS
(-) ERRORS AND SORROWS
(×) VICTORIES AND SUCCESS
(÷) OBSTACLES
INTEGRATE YOUR STRENGTH AND POTENTIALS
DIFFERENTIATE YOUR WEAKNESSES
INVERSE THE DESTINY
SIMPLIFY THE STRUGGLES
TO
MAKE YOUR LIFE SIMPLE AND SOLVE THE PROBLEMS

Kalpana Barde
(PRT Mathematics)

Interesting Facts of Mathematics
Did You Know...

1. There is no Roman numeral for zero.
2. If 23 people are in the same room, there is a 50% chance that two people will have the same birthday.
3. 1000 is the only number from 0 to 1000 that has an "a" in it.
4. The word "hundred" comes from the old Norse term, "hundrath", which actually means 120 and not 100.
5. Forty" is the only number that is spelt with letters arranged in alphabetical order.
6. Every odd number has an "e" in it.
7. -40 °C is equal to -40 °F.
8. The idea of zero was invented by an Indian mathematician and astronomer Brahmagupta in around 600 A. D. He contributed a lot to mathematics and astronomy, and is known for explaining how to find the cube and cube-root of an integer.
9. The hour and minute hand of a clock coincide 22 times in a day.

10. The signs Plus (+) and Minus (-) were discovered as early as in 1489 A.D.
11. Israel doesn't use the common plus sign because it resembles a cross, a symbol and expression of Christian faith.

Govind Singh Chouhan
(TGT Mathematics)
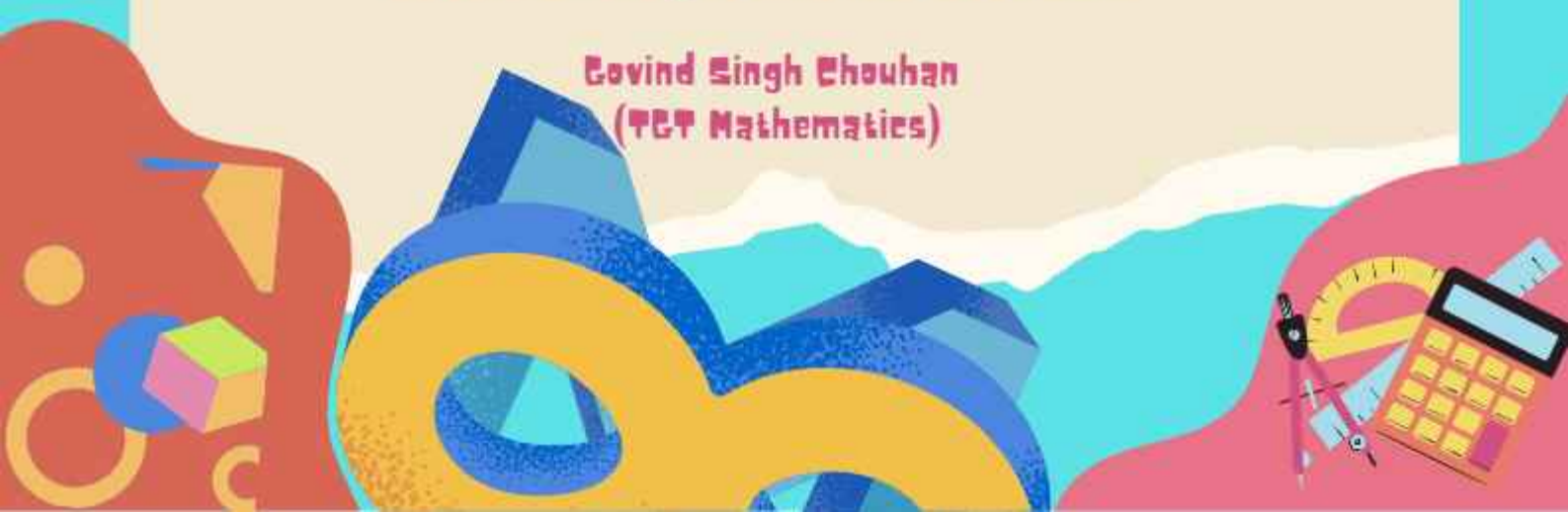
What is mathematics and why we should study mathematics ? this is the general question that each one of us simply wants to know?

In my opinion, mathematics is the science in which we study the quality, structure, space and change around us.

Some important quotations by eminent philosophers about mathematics..

1-"Nature is written in mathematical language-Galileo galilei

2-"Mathematics is the most beautiful and most powerful creation of human spirit-Stephen banach

3-"life is a maths equation in order to gain the most you have to know how to convert negatives into positives-Anonymous

4-"Maths is like going to gym for your brain. it's sharpen your mind.-Danica mackeller

Ranjeet Pathak
(PRT Mathematics)

Mathematics may not teach us to add love or subtract hate, but it gives us hope that every problem has a solution.
— Anonymous

Mathematics is a subject dreaded by the majority of students (even adults). However, it is an irreplaceable part of academics because it is an intricate part of our lives, no matter which profession we are in or the kind of lifestyle we have. Maths involves understanding and working with numbers, shapes, and patterns. It helps in problem-solving and comprehending the world. Mathematics is used in everyday tasks like counting money, telling time and measuring the size of clothes etc. There are various operations in mathematics. There are some basic things like addition, subtraction, multiplication and division that form the foundation of arithmetic. Geometry focuses on shapes and their characteristics, while algebra uses letters and symbols to represent numbers and solve equations. Then there is advanced mathematics which has a wide presence from constructing buildings to creating video games. It serves as a universal language, used by scientists, engineers, doctors, etc. Mathematics also serves as a tool to predict phenomena such as weather patterns and object movements.

Pawan Sharma
(PGT Mathematics)

"In the word Mathematics M stands for mixing of arithmetic, T trigonometry H heights and distances E exponential M for multiplication A for addition I for inverse trigonometry C for calculus S for subtraction. According to a survey 80% of Americans and 75% of Indians are afraid of doing maths question, the reason is simple most of them think maths is about to memorize each and every type of questions but this isn't true at all. We need to do, if device a formulas and use our mind to solve the question. Mathematics is not only about the number or solving few word problems, it is about how we can find different solution of each question in our life as well by solving every question we will not only learn a new solution but also learn a new method of thinking and training our mind in such a way that we could think and get a better solution in any circumstances we face in our life.To love maths as a subject we need not only practice but also to have a faith in ourselves. So that we can train are subconscious mind to get to the answer of any type of question without having a single doubt in ourselves.There is a famous saying you are going to become or going to have the things you will say or make your mind believe so just make yourself believe that you like maths you love doing maths and you will like it one day."

SOUMYA SINGH
XII A
(Head Girl)

POEM

Mathematics is full of fun
With so much to learn
Profits are added
Losses are substracted
Degrees are multiplied
And percentage is divided
Geometry is full of mystery
Algebra has a big history
Integer is to integrate
While angles is to differentiate
Life is full of craving
But maths is amazing......

SAKSHI YADAV
XII A

POEM

In a world of numbers, we explore,
Mathematics, we adore.
With shapes and patterns, we find our way,
Solving puzzles, come what may.

Addition joins, makes numbers grow,
Subtraction takes, makes them go.
Multiply to make things grand,
Divide to share, hand in hand.

Statistics, data's trusted friend,
Mean and mode, they help us mend.
Graphs and charts, they tell a tale,
In numbers, truth will prevail.

So let us cherish, without a doubt,
The power of math, inside and out.
In every problem, there's a clue,
Mathematics, we thank you.

Geometry, with lines and angles clear,
Triangles, circles, shapes appear.
Area, perimeter, all in sight,
Mathematics, a guiding light.

Algebra, with letters in play,
Solving for x, day by day.
Equations dance, a balanced chore,
Solutions found, forevermore.

Sanchita Samantha
XI A

Use of Maths in Biology

As quoted by Mrs Shakuntala Devi without mathematics there is nothing you can do everything around you is mathematics everything around you is a number. And like everywhere else mathematics is also present in biology the field of research that examines mathematical representations of biological system is known as mathematical biology now let´s take a quick look of our surrounding to see where we can use mathematical biology now let´s first start with the basic unit of life and biology ," cells" to calculate the size and number of cells in the body of any organism or to study the division of cells we use mathematics .We also use mathematics while performing dilution in laboratory or two calculate the density of various components of blood during the process of centrifugation. Cardiologist use mathematics to design devices like pacemakers and implantable cardioverter-defibrillators(ICDs) which helps in maintaining the heart´s rhythm and correct them with electrical shocks or pacing pulses in this way we can understand how biology and mathematics are connected to each other

Niyati Yadav

XI A

IMO

SOF INTERNATIONAL MATHEMATICS OLYMPIAD

International maths Olympiad was conducted in the school on 31 October 23. The exam was organised by Science Olympiad Foundation New Delhi. 193 students from class 1 st to 12 th participated in the IMO 23 level 1 exam. Result awaited.

Incharge Pradeep Barde (TGT Maths)

International maths Olympiad organised by MATHS OLYMPIAD FOUNDATION DELHI was conducted in the school. 148 students participated in round 1, out of which 19 students received Gold medal, 10 students received silver medal, 15 students received Bronze medal and 4 students Kushal Barde(class 7 B), Parth Srivastava (10 B), Vedant Gupta and Tejaswini Soni (class 12 A) were qualified for second round which was organised online in the school on 16 Feb 23.

MENTAL MATHS
WORLD CUP

Two students of class 9 Shreyansh Singh and Upendra Swami participated in the qualifier round of Mental Math World Cup Competition organised online between 21 to 24 July 23 and have qualified for the Finale round.

OUR FORMULA

"Copy right received for the formula to find the number of cuboids of given dimensions to make a cube."

shreyash -" I am Shreyash Singh Somvanshi of class 9 A. I have developed a FORMULA for finding cubes. Under the mentorship of respected Sir Mr. Pradeep Barde ."

RUN YOUR MINDS

Riddles

What gets bigger the more you take away?

How do you go from 98 to 720 using just one letter?

When my father was 31, I was 8. Now he's twice as old as me. How old am I?

RIDDLES BY PAWAN SIR

RIDDLE - 1

If Radha is the 50th fastest and slowest in the School, how many students are there in her school

RIDDLE - 2

I am four times as old as my daughter. In 20 years time I shall be twice as old as her. How old are we now?

RIDDLE - 3

How many times can you subtract the number 5 from 25?

RIDDLE - 4

How can you make the following equation true by drawing only one straight line: 5+5+5=550? Can you figure it out?

SCAN TO SEE ANSWERS --->

THANK YOU