Celebration of GANIT Week (Growing Aptitude in Numerical Innovations & Training)

Mathematics has played a very important role in building up modern civilization. *Sh. Srinivasa Ramanujan* (22 December 1887 – 26 April 1920), a genius mathematician, made extraordinary contributions to mathematical analysis, number theory, infinite series, and fractions.

To commemorate the birth anniversary of Sh. Srinivasa Ramanujan and to actively promote interest of students in Mathematics and its application by promoting Mathematics, the school is celebrating GANIT **(Growing Aptitude in Numerical Innovations & Training) Week** from **16th to 22nd December2014.**

The study of Mathematics leads to logical and analytical thinking and its learning and teaching enables better understanding of sciences and spirit behind the **GANIT** week is to make the study of Mathematics more interesting and reduce the fear of learning the subject.

17.12.2014 – Essay Writing Competition

Magical Mathematics

"Approach, Apply and move Ahead!"

"Mathematics, rightly viewed, possesses not only truth, but supreme beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest art can show." quoted by one of the British philosophers and mathematicians — Bertrand Russell. Life is a simple statement of some arithmetic oppressions, profit and loss.

Mathematics deals with a more systematic and logical way of analysing our day-to-day activities. Without maths, it is practically impossible to live a life. All the aspects of life move around the money and mathematics. Basic or complex calculations allow us to deal with the world, say any transaction, trade, weather, construction and so on. The best way to acquire knowledge is application of maths. The world has given us great mathematicians like Pythagoras who have explored the magic of numbers. He belonged to Greece. His golden approach to mathematics gave us what we call as "Pythagoras Theorem." This theorem is till today used for most of the geometrical calculations, development & building of hydraulic structures, etc. He gave us the different set of numbers. One such set is — 'Irrational Number' - the numbers which cannot be written in the form of a ratio of integers. Because of such great people, we are able to step towards development.

Aayushi Jain & Prashant Prakash Dubey 10-B

MASTER MINDS BEHIND OUR SUCCESS - MATHEMATICIANS

Maths, Maths is the very soul mantra for today's advancement. Everything around us has mathematics hidden inside it and the correct use of reasoning is at the core of mathematics. The lockpickers of this treasure chest of mathematics is our great mathematicians. These mathematicians had dived into the great ocean of mathematics. From calculating the speed of wind to advance rocket science, everything needs mathematics. From the basket full of names of them, we only knew a few of them, some of them are :-

- BLAISE PASCAL
- MOHAMMAD IBN MUSAAL - KHOARIZMI
- EUCLID
- THALES
- and the very known on which the nation pride on is S. RAMANUJAN.

Mathematicians are not born famous, they got their fame because of their great works and just like beneath every beautiful bouquet there lies thorns.

For eg :- S. RAMANUJAN was born in a very poor family in Erode, a small village, using one of his identities, mathematicians have been able to calculate the value of π, correct to millions of places of decimal.

As GEORG CANTOR said, "in mathematics the art of posing problems is easier than that of solving them!" and our great mathematicians worked on these problems only to give the humanity the path of success of their advancement.

Mathematics, rightly viewed, possesses not only truth, but supreme beauty - a beauty cold & austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trapping of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest & can show and this just the summary of the novel of the lives of MATHEMATICIANS ..!!

Aditya Singhal & Swasti Jain 10-B

ESSAY COMPETITION

Iti Choudhary
Simran Jain
X-B
School: D.A.V Public School, Sreshtha Vihar

HEROES OF NUMBERS

"To live in the world without becoming aware of its meaning is just like wandering in a library without touching the books."

We all know earth is round, there is some kind of gravitational pull which is joining us to the earth. These are the facts of Science. But if we go deep down, then it is all related to MATHS.

ARYABHATTA, the great mathematician (A.D. 476-550) introduced the number '0' which is the base of mathematics. Had there been no Aryabhatta, our counting would have been limited and we would not have reached at this point of time where we are right now. The first use of the idea of 'sine' in the way we use in today was in the work of Aryabhatiyam by Aryabhatta.

Carl Friedrich Gauss (1777 - 1855) is often referred to as the 'Prince of Mathematicians' and is considered one of the three greatest mathematicians of all time, along with Archimedes and Newton. He has made fundamental contributions to both mathematics and science.

"In mathematics the art of posing problems is easier than that of solving them."

Hence, all mathematicians are our royal possessions.

The word ALGORITHM comes from the name of 9th century Persian mathematician al-Khwarizmi. In fact, even the word 'algebra' is derived from a book, he wrote, called Hisab al-jabr w'al-muqabala.

There are so many mathematicians, that we can't name all of them-like Pythagoras, S. Ramanujan, G.W. Leibnitz etc.

Human nature will not flourish, any more than a potato, if it be planted and re-planted for too long series of generations in the same worn-out soil. There are a lot more mathematicians to come who would succeed them and flourish in the fields of Maths.

Destiny conceals what dreams reveals. Hence there are many more dreams to come which would help us in succeeding at every steps in our lives.

Iti Choudhary & Simran Jain 10-B

ESSAY COMPETITION

Submitted By:
Khushboo Sagar
Somya Rustagi
Class: X-B
School: D.A.V Public School, Sreshtha Vihar.

THE BEAUTY OF MATHEMATICS

"Proofs are to Mathematics what calligraphy is to poetry. Mathematical works do consist of proofs just as poems do consist of characters." A beautiful comparison indeed by **Vladimir Arnold.** The wonderful world we live in is entirely captivated by mathematics. Whichever place we turn our eyes on is surrounded by its applications. From a kid counting toffees to the complex accounts ~~book~~ handling of a bank, from the smallest needle to biggest industrial machinery, from calculating angles in school to winning Kargil war using trigonometry, every single thing from the smallest to largest scale revolves around mathematics.

Mathematics is an organised sector of the circle of human life. ~~Basic~~ Every line that we write involves mathematics, like above, sector of a circle. There is no doubt that ~~the~~ our world revolves around ~~mathematics~~. But as we know, beauty lies in the eyes of the beholder, the same way, the beauty of mathematics is observed and appreciated by a few brainstars only. ~~The world with history of our world has~~ Our world has given birth to great brainstars, the magnificient mathematicians who raised the beauty of mathematics to another level.

P.T.O.

The present world is a gift from them for us. Whether it be Aryabhatta or Pythagoras or Euclid or Sir Isaac Newton or Albert Einstein or P.S. Laplace or Henri Poincare or any such great men have given us so much to embrace and learn from.

Aryabhatta, the Indian hero gave the world 0 and made the counting possible and sinθ for trigonometry. Pythagoras, the donor of pythagoras theorem made it possible to study right triangles. Isaac Newton gave us the new class of functions called exponential and logarithmic functions. Henri Poincre, the father of differential equations gave the world the chapter on Integral Calculus. We, the whole world are ~~completely~~ completely thankful and respectful to these great men who developed us all and raised the level and beauty of mathematics.

Khushboo Sagar & Somya Rustagi 10 – B

The Golden Life of S. Ramanujan

Mathematics, rightly viewed, possesses not only truth, but supreme beauty – a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet subtimely pure, and capable of a stern perfection such as only the greatest art can show. There were many great mathematicians who were able to enjoy the beauty of mathematics and ~~explode~~ explore more and more concepts with passage of time. One of such great mathematicians was Srinivas Ramanujan. When the boys of his age laughed at the concepts of mathematics, he was the only one who was keen to know the logic behind every concept. His curiosity grew so much that ~~his~~ he persued his career in mathematics only and was eager to touch the base of every concept. He was born in Erode on 22nd December, 1887. He was one of India's greatest mathematical geniuses. Using one of his identities, mathematician have been able to calculate the value of π correct to millions of places of decimal. He was so much involved that he use almost 2000 pages per month to solve his problem. Because of his financial problem, he was not able to afford such a large number of pages. That's why, he use same paper twice or thrice with differed coloured inks to reduce wastage of paper. He even use papers lying on roadside. He used to play with numbers as if he is playing with toys. As time passed, he did lots of hardwork and achieve success. ~~But on 26 April, 1920 in chennai~~ But due to some disease, he died on 26 April, 1920 in chennai, But still we all ~~still~~ remember him for his outstanding work and that great personality of him can never ever forgetted by anyone.

Rishu Jain & Ishita Nautiyal 10-B

By :-
Vanshika Jain
Somya Gupta
X-B.
D.A.V. Public School,
Sreshtha Vihar.

THE GREAT MATHEMATICIANS

"The mathematicians who are merely mathematicians reason correctly, but only when everything has been explained to them in terms of definitions and principles," Great lines said by Blaise Pascal. Also, Aryabhatta, the great Indian Mathematician, led the foundations of mathematics.

Maths, it is considered as the very soul of today's advancement. And India has also contributed a lot in the field of maths, especially by giving a big Zero, which is an important landmark in the history of mathematics.

Carl Friedrich Gauss, well-known as the 'Prince of Mathematicians' is also considered as one of the three greatest mathematicians of all time, along with Archimedes and Newton. Also, he has made fundamental contributions to both mathematics and Science.

A famous Greek mathematamatician 'Thales' (640-546 B.C.) gave an important truth related to triangles. A theorem has been also named after him, well-known as Thales Theorem.

Pierre Simon Laplace, with some other mathematicians like James Bernoulli and A. De Moivre contributed a lot in the probability theory. J. Cardan wrote his first book on the subject, the book on Games of Chance, which was also related to probability.

The Great Indian Mathematician Aryabhata, used the words ardha-jya, for the half-chord. He wrote all these theories in his famous book 'Aryabhatiyam', which was later translated into Arabic and also introduced trigonometry.

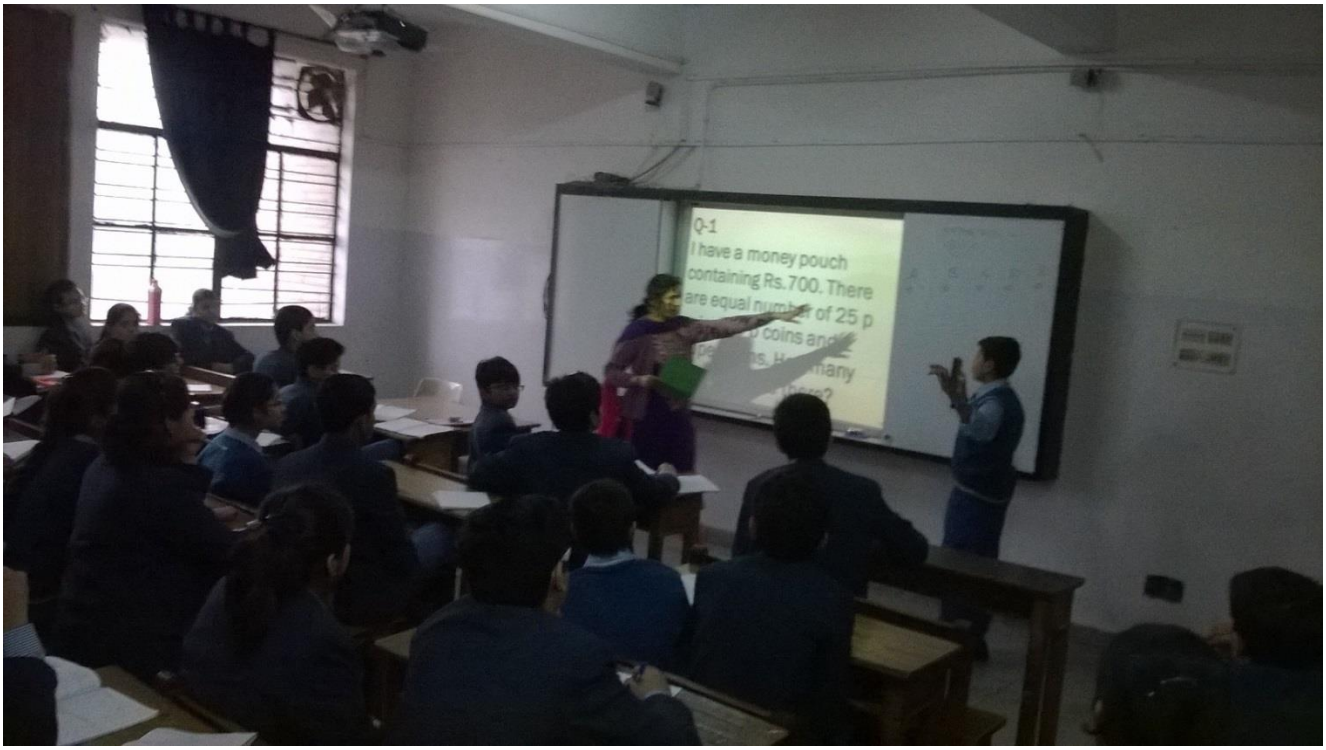
Some other mathematicians like S. Ramanujan and Euclid along with Pythagoras have also played an important role in the field of mathematics.

It is due to these mathematicians that we are so developed today, both technically and economically.

Vanshika Jain & Somya Gupta 10-B

18.12.2014 – Quiz Competition

A quiz was conducted in Class 8, where the entire class was divided into 5 teams and the questions were more of logical reasoning based on the curriculum of class 7 and 8 both.




Q-3
500 women live in a village.
6% of them wear 1 ear-ring.
Half of the remaining wear
two ear-rings and rest of
them wear none. How many
ear-rings are there in total?

Participants of Quiz

Team A
Vanshika, Yuvraj, Shrey, Pooja, Agranya, Riya, Muskann, Amisha, Divyanshi
Team B
Prerna, Vaibhav, Utkarsh, Raghavi, Sarthak, Pranav, Tushar, Raghav, Ishita
Team C – WINNER
Sarthak, Binwant, Neha, Manan, Ubaid, Karamveer, Shrey, Shubhankar, Ayushi
Team D
Dev, Srijan, Isha, Saksham, Manan, Swastik, Ishika, Manan Arora, Ekaksh
Team E
Ishika, Karan, Amanpreet, Abhaya, Arihant, Aditya, Keshav

19.12.2014 – Experience Sharing on Innovation by Teachers and students

Name – Manas Shekhar
Class – IX 'C'

VEDIC MATHS

Techniques of Multiplication :

given by Vedic Maths

1. Multiplication by 11

(i) $24 \times 11 \Rightarrow 24 \times 11 = \boxed{264}$

2	6	4

(ii) $48 \times 11 \Rightarrow 48 \times 11 = \boxed{528}$

4	12	8

→ Multiples of 11 = 22, 33, 44 .....

(i) $24 \times 22 \Rightarrow 2 \quad 6 \quad 48 \times 11 \Rightarrow \boxed{528}$

4	12	8

2. Multiplication of 2 digit number by 2 digit number when tens place digit is same and sum of ones place digit is same.

(i) $79 \times 71 \Rightarrow 79 \times 71 = \boxed{5609}$

56	09

(ii) $38 \times 32 \Rightarrow 38 \times 32 = \boxed{1216}$

12	16

Topic _____ Date _____

Same technique for sq. of no. ending with 5

(i) $35^2 = {}^{4}35 \times 35 \Rightarrow \boxed{1225}$

$\boxed{12}\boxed{25}$

(ii) $115^2 = {}^{12}115 \times 115 \Rightarrow 115 \times 115 = \boxed{13225}$

$\boxed{132}\boxed{25}$

3. Multiplication of 2digit no. by 2digit number when the sum of tens place digit is 10. (ixi)

$98 \times 19 \Rightarrow 98 \times 19 = 1862$

$\boxed{9}\boxed{89}\boxed{72}$

Naina
IX-C
27

DAV PUBLIC SCHOOL SRESHTHA VIHAR

Topic _____ Date _____

VEDIC MATHS

Techniques of Multiplication given by Vedic Mzth.

1 MULTIPLICATION BY 11

(i)

$$\begin{array}{r} 24 \\ \times\ 11 \\ \hline 2\ |\ 6\ |\ 4 \end{array}$$

$24 \times 11 = 264$

(ii)

$$\begin{array}{r} 48 \\ \times\ 11 \\ \hline 4\ |\ 12\ |\ 8 \\ \hline 528 \end{array}$$

$48 \times 11 = 528$

(iii) Multiples of 11 = 22, 33, 44.....

$24 \rightarrow 24 \times 2 = 48$

24×22

$$\begin{array}{r} 48 \\ \times\ 11 \\ \hline 4\ |\ 12\ |\ 8 \\ \hline 528 \end{array}$$

$24 \times 11 = 528$

Topic _____ Date _____

2 Multiplication by 2 digit number by 2 digit number when tens place is same and sum of ones place digit is same.

(i) 79

$$\begin{array}{r} 79 \\ \times 71 \\ \hline 56 \mid 09 \end{array}$$

$79 \times 71 = 5609$

(ii) 38

$$\begin{array}{r} 38 \\ \times 32 \\ \hline 12 \mid 16 \end{array}$$

$38 \times 32 = 1216$

Same technique for squares of number ending with 5

(i) 35^2 35

$$\begin{array}{r} 35 \\ \times 35 \\ \hline 12 \mid 25 \end{array}$$

$35 \times 35 = 1225$

(ii) 65^2 = 65

$$\begin{array}{r} 65 \\ \times 65 \\ \hline 42 \mid 25 \end{array}$$

$35 \times 35 = 4225$

Multiplication of 2 digit number by 2 digit number when the sum of ten's place is ten.

(i) 98

$$\begin{array}{r} 98 \\ \times 19 \\ \hline 9 \mid 89 \mid 72 \end{array}$$

$98 \times 19 = 1862$

Name :- Shubham Aggarwal
Class- IX^th
Sec :- C
Roll no :- 40
Topic :- School name :- D.A.V Public School Sreshtha Vihar Delhi-110092 Date

Vedic Maths...

* Tq. Techniques of Multiplication given by Vedic Maths?

1). Multiplication by 11

(i) 24
X 11 ⇒ 24 X 11 = 264 Ans.
2 6 4

(ii) 48
X11 ⇒ 48X11 = 528. Ans
5 2 8

(iii) Multiples of 11 = 22, 33, 44.....

24 X 2 = X48 ⇒ 48X11 = 528 Ans.
22 11
5 2 8

Topic _____ Date _____

2. Multiplication of two digits no. of 2 digits no when 10's place digit is same and sum of one's place digit is 10.

(i). 79
×71
5609

⇒ 79×71 = 5609 Ans.

(ii) 38
×32
1216

⇒ 38×32 = 1216 Ans.

Same techniques of square of no ending with 5.

(iii) 115
×115
13225

⇒ 115×115 = 13225 Ans.

3. Multiplication of 2 digit of 2 no. when the sum of 10's place digit is 10.

(i). 98
×19
882
98

⇒ 98×19 ⇒ 1862 Ans.

Made by :- Shubham Agg.

Topic _____ Date _____

Name - Siddharth
class - IX-C

VEDIC MATHS

Techinques of multiplication given by vedic maths

1. Multiplication by 11

(i) $24 \times 11 = 24 \times 11 = 264$

$2 \quad 6 \quad 4$

(ii) $48 \times 11 = 528$

$4 \quad 12 \quad 8$

$5 \quad 2 \quad 8$

(iii) Multiples of 11 = 22, 33, 44, ...

$24 \times 2 = 48$

48×11

$4 \quad 12 \quad 8$

$5 \quad 2 \quad 8$

2. Multiplication of 2 digit by 2 digit when ten's place digit is same and sum of one's place digit is carry.

(i) $79 \times 71 = 5609$

$56 \quad 09$

(ii) $38 \times 32 = 1216$

$12 \quad 16$

Same tegnique for squres of no. ending with 5

$35^2 = {}^{4\times}35$
$35^{\times}$
$12|25$

$35 \times 35 = 1225$

$115^2 = {}^{1\times}115$
115
$132|25$

$115 \times 115 = 13225$

3. Multiplication of 2 digit no. by 2 digit no. when the sum of ten's place digit is 10

(i) 98
19 $= 1862$
$9|89|72$

20.12.2014 – Screening of film produced by Vigyan Prasar

Stills from the movie

22.12.2014: Origami and poster competition