



QUANTUM 2014

Department of Mathematics,
Lady Shri Ram College for Women

MATHEMATICS
is one of the essential emanations
of the human spirit. A thing
to be valued in and for itself
like art or poetry.

From the Editors' Desk...
Dear Readers,

Writing this piece leaves us with bitter-sweet feelings. So much blood and sweat has been invested in this that to finally see the entire newsletter ready fills us with a sense of pride and contentment.

In this issue of Quantum, we have tried to display the creativity and the literary prowess of the extremely talented ladies of our department.

Go on, read ahead, and know for yourself!

Without much ado, we take your leave and hope that you enjoy this issue, savour it and that it remains with you, in your hearts forever. This is our little tribute to our department.

With love, Nandita Mahant &
Anishia Juneja



INSIDE THIS ISSUE...

A Tale of a Mathematician - page 2
The Snaktopus - page 3
Delhi-ites - page 3
Pranayamic Epiphany- page 4
Love and Indian Cinema- page 4
Indian Politics- page 5
The President Speaks- page 6
On Racism - page 6
Mathematical Crossword- page 7
Horoscope 2014- page 7
Photo Collage- page 8

BEAUTY LIES IN THE 'PHI' OF THE MATHEMATICIAN by Jasmine Bhullar

One question that has baffled people for centuries is "what is beauty?", with some believing that beauty is skin deep and others asserting that if that were the case, the cosmetics industry would go broke.

But as a student of mathematics, it would rather satisfy my curiosity if this question was answered in mathematical terms, perhaps a formula or a theorem.

The Greeks said that 'all beauty is mathematics'. If that is true, then perhaps, there is a mathematical formula, relationship or even a number that can describe facial beauty.

It turns out there is.

THE GOLDEN RATIO

Let us begin with trying to understand what the Golden Ratio is.

The Golden Ratio is a special number, found by dividing a line into two parts so that the longer part divided by the smaller part is also equal to the whole length divided by the longer part. Golden Ratio is often symbolized using Φ , after the 21st letter of the Greek alphabet. It has many other names: the Golden Mean, the Golden Section, Divine Proportion, among others.

The Golden Ratio is equal to:
1.61803398874989484820...

The Golden Ratio is an Irrational.

GOD KNEW GOLDEN RATIO

So why should you be concerned with the golden ratio? This question is not too difficult to answer. Rather, the answer to this question comes quite "naturally". It is found in all forms of nature and science: in the human body, shells, galaxies, you name it. It is the ratio between the length of your hand and the length of your lower arm. It's also the ratio of your total height to the distance between your head and your fingertips. This is largely because the easiest way to efficiently pack things tightly together is using the Fibonacci sequence. This sequence ties directly into the Golden Ratio. If you take any two successive Fibonacci numbers, their ratio is very close to the Golden Ratio.

GOLDEN RATIO DEFINING BEAUTY

According to studies conducted by beauty scientists, the most 'aesthetically pleasing' people are closely aligned with the Golden Ratio. For example, the ideal distance from the pupil of a person's eye to the center of the chin is 1.618 times the distance from the pupil to the end of the nose. The ideal length of a face is also 1.618 times its width and 1.618 times the distance between the eyes and the person's mouth.

Canadian and US researchers found there were certain facial proportions that made some women more beautiful than others. For the research, photos of women having varying facial features were taken, and the said photos were shown to men, who were then asked to choose the photos that they found most appealing.

It turns out the "ideal" value for the ratio the height of the face to the distance from eyes to mouth was approximately 0.36 and the ratio of the distance between the eyes and the width of the face was 0.46. But wait, these numbers are not the Golden Ratio, or are they? Though they are not exactly equal to the Golden Ratio, they can be derived from it. For example, the Vertical Golden Ratio of 0.36 is approximately equal to $1/1.618$ squared.

MARQUARDT BEAUTY ANALYSIS (MBA):

Using the Golden Ratio as his basis, American plastic surgeon Stephen R. Marquardt constructed a two-dimensional figure called the Golden Decagon Mask. Within the shape of a Primary Golden Decagon Matrix, forty-two secondary golden decagon matrices (each smaller than the Primary by a multiple of 1.618) were overlaid to form the various components of the human face. The resulting image is the Phi Mask, composed of line segments and shapes which relate to each other through the Golden Ratio.

It is not only alleged to represent the ideal facial features of adult women AND men, but it is also said to do so independently of race. MBA then uses this map to outline surgical options for persons needing reconstructive procedures. Angelina Jolie fits the mask pretty well. Soccer superstar, David Beckham, also fits the Mask almost perfectly.



Considered one of the most beautiful women of all times, Egyptian queen Nefertiti also passes the Marquardt beauty test with flying colors.

Moreover, the Marquardt mask also aligns with the calculations of the US and Canadian Scientists:

The horizontal ratio is 0.495.

The vertical ratio is .3795 which is close to .36

It is also seen that your face is more likely to conform to the golden proportions when you are smiling.

Without prejudice to the above, I personally feel these are just numbers (though for us mathematicians, numbers are not just anything). It is the imperfections that make life interesting. The small quirks are what make us all beautiful in our own unique way.

After all, in the words of Marilyn Monroe, "Imperfection is beauty".



A TALE OF A MATHEMATICIAN by Ankita Tulshyan

Emmy award-winning journalist and bestselling author Cokie Roberts once said: "As long as algebra is taught in school, there will be prayer in school."

A Mathematician's relationship with the common public closely resembles a "bipolar" disorder - they admire us for our intellectual capability and at the same time also hate us (I think the root cause of this hatred is more toward the mathematics itself). Almost everyone has had at least one bad experience with mathematics during some part of their life, if person is saying no, he / she is lying. When people ask us what you study, and the reply is mathematics, then their first reaction is of awe, "WOAH! Mathematics!" and gradually it turns into their lament of bad experiences with mathematics in high school, "I cannot even get my calculations right" and so it goes on.

Actually what I think is people see us as slightly mad geniuses, and take things for granted. This view of mathematicians as "geniuses" sometimes creates problems. Being mathematicians still we can have a bad time with calculations, no big deal. From childhood only, we, in fact more than us, others, get a feeling that we mathematicians are different. I think the word 'nerd' arose so people would have at least some definable category to put us into. The very traits which make us good at mathematics, actually work against us in society. A minimal requirement in mathematics is a certain level of being obsessive compulsive. An obsession is a 'persistent recurring thought', while a compulsion is 'an action a person feels compelled to carry out over and over'. What abnormal psychology texts see a 'disorder' - we embrace it wholeheartedly.

Being mathematics people, we are seen with a different view-point (what that view-point is, is hard to explain, especially the reasoning behind it) and this will go on, and being women, is like the cherry on the cake; things get more interesting there. What we need to do is get over these prejudices and do what we love most, mathematics.

I came across this advice in a blog - Keep in mind that for most of your career you will be 'in progress' working on a project. If you only get enjoyment from major victories, you will have very few moments of happiness. You need to learn to enjoy the process of doing mathematics so that you can enjoy every day of your career.

HIGHLIGHTS OF THE YEAR compiled from the mathematics blog

TARANG 2013 by Yashaswika Gaur

With colours spread around as far as your eyes can look, with energy so contagious that it infects everybody far and wide, TARANG 2013 stood as the third best fest organised in Delhi University. The theme for the fest was hundred years of cinema and so, the college was decorated with sketches of famous movie characters and clichéd monologues.

Adorned with food stalls, gaming zones complete with shopping stalls, the fest was incredible! With students clutching their passes like golden tickets, the electricity in the air was enough to put you on cloud nine. Security was pretty well managed by NSS volunteers. The food was finger licking and the college was brimming with glittering and cheerful faces. The shopping stalls ranged from shiny bright earrings to handmade goodies and clothes and the vespa photo clicking contest was a huge hit.

There were a number of informal games all around the campus like treasure hunt and beg borrow steal which saw enormous participation. The formal competitions for dancing, group singing, drama, street plays etc were enjoyed by a jam packed auditorium and the DJ night had everybody swaying to the music.

TALK ON MATHS AND POLITICS by Anisha Juneja

In today's world, no discipline can be studied independently. For holistic learning, it is essential to understand the subtle connections between subjects and weave them together for a complete picture. Two seemingly opposite disciplines, mathematics and politics, are also interdependent. There are several applications of mathematics in politics and Dr. Sudeshna Basu, in her talk, very eloquently explained one such application.

Dr. Sudeshna Basu's lecture was on the usage of



colour combinations were a common sight. Not to miss, some sported stilettos with socks and others teemed up traditional accessories with high street style clothing.

The highlights of the programme were a song and an amazing dance performance by the Second and Third years to entertain and welcome the freshers. The first years introduced themselves and participated in a variety of contests like cat-walking and question-answer round. Each one had to pick up an object in the Audi and explain how it described them.

The title of Miss Freshers went to Vaani Chopra, Rajenki Das won the title of Miss Best Dressed, and Abhijit Kaur was adjudged Miss Wittipedia. The freshers also got a great opportunity to interact with their seniors. All in all the event was great fun, with everyone grooving to Bollywood music in the end.

MATHS DEPARTMENT ASSEMBLY

11th February, 2014: On this day the morning assembly was organized by our department. It began with a very interesting paper presentation on the mathematical secrets of a popular sitcom called The Simpsons. Aastha, Jasmine and Srishti from the 2nd year beautifully explained the mathematical background and the various kinds of numbers used in the show, with many characteristics unknown to most of us!

It was then followed by a poem recitation by Mrs. Monika Singh, one of our senior faculty members. Her poem "Mai" (me) was indeed a very thought provoking piece.

Classical dance performance by Anisha, Srishti and Surbhi was just the perfect ending to this extremely entertaining assembly. It was heart-warming to hear Principle Ma'am praise our department for putting up a brilliant assembly.

ANUPAMA DUA PAPER PRESENTATION by Surbhi Sood

Being a first year student, I was looking forward to the Anupama Dua Paper Presentation with great enthusiasm. It was a pleasure to have been selected to present a paper at this occasion. I presented a paper on the topic, "Tessellations", along with my classmate Shruti Kaushal.

The entire process of preparation, right from searching for a relevant topic for the paper, preparing a detailed abstract, to finally making the presentation, was a great learning experience. I got the rare yet exciting opportunity to explore Mathematics beyond our textbooks. This indeed is very important for an in depth understanding of the subject. Also, this has especially helped me in boosting my confidence. At the same time, I got to learn a lot from the other presentations, especially the ones by the second year and third year students. By the end of it, I was brimming with the new ideas that I had learnt through this enriching experience.



applications of mathematics in voting. There are several ways of counting votes and electing a leader; some of which include simple majority, weighted majority, dictatorship and the even-odd method. Each of these methods can be defined in mathematical terms. For example, the simple majority method can be described in the following way: The candidate with the maximum number of the total number votes is elected as the leader. Each of these forms of voting have their own pros and cons based on some criteria. This criterion includes the fairness of the method, anonymity of the voters and the ability of the method to be able to finally elect one winner without a draw. On comparing the several methods based on the criteria mentioned above, a conclusion is reached that election of a leader using the method of simple majority of votes is the best method.

This talk broadened my perspective of the real-life application of mathematics by bridging the gap between a purely scientific discipline such as mathematics and a more subjective social science discipline, politics

DEPARTMENT FRESHERS by Surbhi Sood

The Mathematics Department of LSR organized the Freshers' Party on 24 August, with an unusual yet exciting theme, "Fashion Disaster". The event, which was organized in the Auditorium, saw participation from a number of enthusiastic, bizarre looking freshers. Everyone showcased their unique interpretation of "Disaster". Mismatched styles and

FROM THE BLOG COMMITTEE HEAD by Kritibha Rai



Being in charge of the blog committee was a very new experience for me. I am not a blogger. To simply state, I am not at all a writer. If I had the money and resources I would employ someone to write my mails. Having said that I do enjoy scribbling ideas in a diary and maintaining a journal with very little writing but lots of grim sketches and flow diagrams.

Heading the blog team was not at all easy! The most difficult task was to keep the people interested in reading our articles and posts. Initially we had problems getting people to write and mail us their articles but eventually we kind of hit it off.

So far we have published 14 posts and the response has had a very smooth uphill curve, with 5 views a day, when we just began to 40 views a day now! The highest number of 'views a day' was on 17-09-2013, and it was 224 views

It's always hard to let go off something that you were so closely associated with. I will definitely miss working for the blog but at the same time I really hope that the next union will take it to greater heights and make the most out of it!

It was a pleasure to head the team and I am really proud to see the blog become a success. It wouldn't have been possible without the team effort and support from the union members.

DELHI-ITES by Garima Yadav

The capital of India holds one of the most exciting, hard to understand and jovial breed of people in all over India; Delhiites. This breed has earned different reputation from other regions of our country. Some call it the city of the rude and arrogant while some describe it as a place for people who live larger than life. Through this article I present you the beginners guide on Delhiites by a true Delhiite. These informative points will certainly help you understand us better, which is for your own good.



Being proud is embedded in our genes. We are very jovial and proud people. We take pride in the smallest things like having a distant NRI relative

to things like having a parking space in front of our house. An outsider may find us eccentric in this sphere but this prideful nature is one of the most pivotal points that separates us from you fellow mumbaikars, kolkataites or wherever you may be from.

A Delhiite can be your best friend or worst enemy. It all depends upon how you interact with them. If you befriend us you will find the most caring and funny friend ever. Delhiites have the best sense of humor you can find anywhere. We love to crack jokes; on anything to everything. You can trust a Delhiite for help even during midnight. And curse your stars if your enemy is a Delhi Walla. We are people whose ego gets hurt even from slightest things and we surely know ways to take revenge. So never upset a Delhiite Delhi holds the license to show off. Remember it the very moment you enter Delhi as you will encounter this phenomenon on almost daily basis. We Delhiites through sheer hard work and practice have envisaged ways to flaunt off on almost everything without the other person getting any hint of our intentions. With our brilliant oratory skills we easily tell the price of our purchased commodity making the other fellow jealous as well as hapless.

Bargaining is the supreme power that Delhiites have, especially the aunties. No matter how much gold jewelry she is wearing and how much money is in her purse, she won't budge down and will force even a hardcore professional to bow down. The notion of fixed price simply doesn't work with the ladies of Delhi. Even showroom owners swear by that.

Chandni chowk should be declared a national heritage site if our wishes are heard. The food here is nothing but exquisite and mouth watering. Indian, mughalai and many other cuisines can be found here without much load on your pocket. It's not just the food that makes Chandni chowk such a special place for us. It's the whole environment there; the bustling streets, the old pre independence era buildings make it the special place it is for us.

Never ever try to have a race with us on our own roads. We have some of the most eccentric drivers who take it a personal responsibility to let you know that you still lag behind in driving skills. Roads are the best place you can hurt our very fragile ego. We've got the world's best road rage experts so just beware. There are many more things which one should know about us but you can make do with these for the time being. Laziness is also one of our attributes which is currently forcing me to stop writing further.

MATH FUN FACTS by Rhea Palak Bakshi

- 1.) "ALGEBRA" comes from the Arabic word "Al-jabr" meaning literally, restoration.
- 2.) From 0 to 1,000, the letter "A" only appears in 1,000 ("One Thousand").
- 3.) $1435 = 41 \times 35$
 $1530 = 51 \times 30$
 $1260 = 21 \times 60$

Such numbers are called Vampire numbers. A vampire number is a number, which can be written as a product of two numbers (called fangs), containing the same digits the same number of times as the vampire number.

- 1.) $12 + 3 \cdot 4 + 5 + 67 + 8 + 9 = 100$. This is the only way 100 can be written using the 4 basic binary operations and first 9 natural numbers in ascending order.
- 2.) $666 = 6^3 + 6^3 + 63^3 + 6 + 6 + 6$

THE SNAKTOPUS by Esther Darlong

Once lived a strange creature.
 Had on it, a unique feature.
 "Snaktopus" was he named.
 For every disaster, he was blamed.
 Hated great by the countrymen
 A target of their horrid plan.
 Ugly hybrid, though born of Love:
 and here he's left with nothing enough.

He lives in a house, once broken;
 for which he's now all frozen.
 So alone, so ignored, is he
 Is this the way he's supposed to be?
 Left by his beloved, once upon a time
 the Country men think he's committed a crime.
 Hungry for love, he's dying;
 near a River, he's crying.

Relatives, friends, he has none.
 Everything he had is now all gone.
 Forsaken and betrayed by traitors,
 he was almost sent to the abattoirs.
 But he escapes like a Hero
 though he knew he is always filled with sorrow.
 Always in the hope of meeting her;
 he lives his life, so long, so far.

Born to a Reptile and a Sea Monster.
 He grew up as his own foster.
 Four hearts, he once gave it 'way,
 to someone, he longs for, ev'ryday.
 And while he stood, one day, by a stream,
 he meets the girl of his wildest dream.
 But because she was graceful and fair,
 he wished that her name was Claire.

Claire, because she was the one,
 who's taken his hearts. She has gone!
 Never returned, but she left him to die.
 Out of tears, now he can't cry.
 But since the arrival of the new lady,
 into his life, new dreams, we see.
 And so in love, once again,
 He forgets he's ever lived in pain.

But here doesn't come the happy ending.
 He's yet to fight for an understanding.
 The whole world is now against him, for
 he's loved a human, forevermore.
 The people's hearts here, still won't melt,
 though he's suffered more than he felt.
 And the one who is standing beside,
 is the reason for his remaining pride.

So, now together they break the curse,
 of being hated or even worse.
 The force of love, so, gave him a life,
 where he gets to live with a beautiful wife.
 There's always someone, he realized.
 Heaven's gift, he finalized!
 And now that his world is no more in fuss:
 He bears, no longer, the name 'Snaktopus'.



PRANAYAMIC EPIPHANY by Vaani Chopra



Inhale deeply and get ready for the first breath retention.

Twenty-odd bodies sit still with their legs crossed, eyes closed and backs straight and hold their breaths. It's abnormally silent. It's bizarrely still. It's remarkably peaceful. And that's when you feel it. It's as if the

birds stopped chirping and the dogs stopped barking so that you could have this moment. As if the cars on the street outside deliberately stopped so that you could have this experience. As if your senses ceased to function for a while so that your mind could have thirty blissful seconds. Did someone hit the pause button on life? You're completely immersed in the tranquillity but strangely, you don't feel the need to desperately cling on to these moments, afraid that you'll never get them back. In fact, what makes them so extraordinary is that they're so easily accessible - you just never knew.

Now exhale slowly and completely.

The Man With Bleeding Fingers by Abhijit Kaur

A girl of about 10-12 years of age had lost her parents in an accident and lived with her aunt and uncle in Delhi. During the winter break her aunt and uncle had to leave for Chandigarh for a day. She was left alone in the house with her maid servant. She spent the day playing with her friends but in the evening when it became dark she confined herself to her room. She was reading a story book when suddenly the shrill of the phone cut across the peaceful atmosphere of the room. She picked the phone when the man at the other end said "I am the man with the bleeding finger, I will come after 2 hours". She replaced the receiver of the phone and thought - "what a silly person!" But again after 10 minutes her peace was disturbed by the ringing of the phone. She picked it up and heard the same voice. It said "I am the man with bleeding fingers" I will come in an hour. The phone got disconnected and the girl got slightly scared but consoled herself thinking it to be a joke. She tried to concentrate on her story. But the phone buzzed again and the man said "I am the man with bleeding fingers I am at your door". The girl was shaking with fear. She wanted to call her maid servant but she felt choked and could not speak. She left the phone hanging and hid herself behind the door. The man pushed the door apart and came in. He located the miserable and scared girl and very coolly told her - "I am the man with bleeding fingers Can I have a bandage." The man gave his introduction as the man living next door, who had been told by the girl's uncle to keep an eye on the girl. And the together they had a hearty laugh.



LOVE AND INDIAN CINEMA by Mannat Gautam

- depiction in films of arranged marriages and love relationships over the 100 years of Indian cinema



From the coy and hesitant way, of the yesteryear actresses, of accepting love, to the extrovert and gregarious nature showcased by today's heroines, the India cinema has jumped leaps and bounds when it comes to 'love' and 'being loved'. Films are mirrors that show the apt and exact reflection of the Indian society. In the early 30's came 'Alam Ara', the first commercial Hindi movie which dealt with the love story of a prince and a gypsy girl and in 2012 came 'Barfi' celebrating the love between a mute, deaf boy and an autistic girl. While the starting years of the Indian cinema saw love as a bond between two individuals which is first approved by parents and then cultivated by the arranged marriage concept, the later dealt with the extrovert modern generation falling in love more than once and exploring the concept of live-in relationships followed by love marriage.

Movies, back in the 60's and 70's, had an element of shyness and modesty in the love relationships where the saree clad heroines hid behind the trees while talking to their lover amidst a crowd. The hero would never dare to look into the eyes of his beloved before being given a consent to do so! That was the purest era of love that ever came and went.

Then came the 80's and the 90's where the western influence had started showing its footprints. Now our actresses wore those tiny skirts and revealing tops, walking in extraordinarily high heels to woo her crush and seemed to be very comfortable with the romantic dance and song sequences shot with the actor in the rain showers. "Tip tip barsa paani" and "kaate nahi kat te yeh din" are the accomplished and classical examples to prove my point! With style came the courage to question the idea of arranged marriages. Our heroes could now brave the adverse circumstances and have the audacity to barge into the girl's house on the day of her marriage and elope with her.

The present day scenario is that the western culture seems to have totally overshadowed our customs and traditions. The good change is the ignorance of caste and religion while considering someone for marriage but the bad change is the decrease in the seriousness and belief in the institution of marriage. Movies like 'Love Aaj Kal', 'Break Ke Baad' and 'Bachna Ae Haseeno' rightly depict the modern viewpoint of first 'checking out' a person and then deciding whether to continue or move on! The film industry has inculcated among the youth values which has its own pros and cons. On one side, it has brought about the idea of liberal love marriages being solemnized and on the other side the young generation does not want to get committed to a single person for the rest of their life.

The Indian cinema has always come up with films that are controversial but this fire within the film industry to entertain and bring new topics to the surface makes it worth an applaud!

DAY TRIP TO WORLDS OF WONDER COMPILED FROM THE MATHS BLOG

In the middle of a hectic schedule, the Mathematics department union managed to successfully organize a stress busting day trip to the World of Wonders.

The day had a slow start with crowded metro stations and our excitement couldn't be contained in the metro cars. Yet, upon arrival, we realized that the dhakkas of the metro had paid off. Right in front of us lay a completely empty amusement park. It was as if the park was beckoning us, waiting for us to come and launch ourselves at it!



We started the day with the water park. I think we all lost a few grams climbing up the stairs to the sky touching slides. It was such an effort but it was totally worth it! And I know everyone else thought the same because despite the moans one could hear at every step of the stairs, not one of us would stop to pause or climb back down. Instead, we went down the slide, turned around and climbed back up with a new variation of the moan.

When it was time for us to leave, we were sad but we had the amusement park to look forward to. So, after a quick bite, we entered the amusement park. Some rides were routine rides but some were outright terrifying! The free fall in particular had me clutching everything around me to try and stop that sinking feeling in my stomach! This went on till everyone had exhausted all the rides as well as themselves to their hearts content.

Honestly, those of us who missed the trip, you missed out on so much fun. From crazy photography sessions to impatiently waiting for food, every minute of that day was fantastic! And dragging unwilling friends to scream their lungs out on scary rides was at times more fun than the ride itself. It was a typical "girl's day out!"

We made our grand exit with a free fruity in hand. With a long walk (it seemed never ending!) to the metro station, we all headed home to end this spectacular day. So, cheers to the Maths Union and a special thanks to Rhea for successfully planning the trip and executing it!

Indian Politics: The Equation with no solution

by Gauri Grover

Are you rendered incoherent when posed with serious questions about your political preference?

Do you feel utterly at sea when it comes to participation in intellectual discussions about your country's political scenario?

Is your incompetence at pretending to sound smart hampering your way to absolute social glory?

Fear not!

This Valentine, we bring you the perfect 4-point guide which aims at helping you discover your ideal political partner, someone who can guarantee you a lifetime of extravagant misery and disappointment, with complimentary budget scams and ample opportunity to whine about Mayawati "sculptures" scarpering the super "scenic" landscapes of U.P. and Bihar.

Fast track your status from Completely Clueless to Obnoxiously Judgemental in 4 meticulously assembled choices:

1. Go for RaGa:

Do you wish to vote in favour of a good cause?

How about Social Service for over privileged kids?

At a very young age, Little Rahul Gandhi was thrown headfirst into the lap of luxury, with a silver spoon unceremoniously shoved down his throat.

His Mommy had promised him an entire country for Diwali. Instead he only got Amethi to wreck. Throwing the biggest tantrum of the century, he declared complete "Brainruptcy" on National Television.

There are tens and tens of kids like Little Rahul in our country, naive and oblivious to the realities of the world, who can only survive on frivolous vote banks such as ours.

#SaveRaga

2. The Modi Wave:

If you are a fan of Salman Khan movies, Narendra Modi would probably be your ideal political type. Because like all Salman Khan movies, Modi has great mass appeal, a "slight" fetish for violence, minimal role for women and maximum flops in the early 2000s.

Moreover, like the customary removal of Salman Khan's T-shirt in Salman Khan movies, Modi's speeches also tend to be slow motion, elaborately exaggerated and highly engaging only for his true fans.

#ModiBhaiRocks

3. The Kejriwal effect:

If you are a student in Delhi, Kejriwal is the way to go. He is willing to give you absolute Anarchy..... which is also synonymous to "Ultimate Student Paradise". Kejriwal has worked tirelessly and incessantly towards the local betterment of Facebook, Twitter, Google + etcetera, which, every time he sits on a Dharna, get instantly swamped by Statuses of the type:

"OMG...#Kejriwal is soooo like.....2013.....like..... Get over it already...like...LOL :pp"

Try not to get detracted by such scholarly remarks. And keep in mind the endless days of dysfunction and disruption that only Kejriwal's government can provide.

#InquilabKejriwal!!

4. If none of the above descriptions apply to you, then you can go for None Of The Above (NOTA) option. Sometimes it's eccentrically fashionable to detest everything. #TWTTERSUCKS

Since this article is offensive to everyone, it is offensive to no one. #Peace



"MATHS HONS? WHAT?"

by Yashaswika Gaur



"Hi, what course?" Always the first question.

"Maths honors." I say with a smile.

"What?? Why, in the world, would you do that to yourself?"

"Seriously? You got guts man!"

"Ha-ha! That was the funniest one I have ever heard!"

But the best response that my reply got me was a look of wide eyed horror with a gaping mouth completed with the slight flutter of eyes.

All of that makes me wonder a lot of times, why does maths inspire a sort of unsaid terror amongst people. Well, after a meritorious research (ahem, ahem), I stumbled upon a few conclusions.

Mathematics is believed to be an extremely difficult thing. And hence, a subject for astute only. It is tough and quoting a friend, "you have to work really hard to excel in it". Another wonderful reason I came across was that why would somebody want to know geometry or complex numbers? What good would it do to sit and do real analysis? We know what numbers are, we know them for real, what is the point in analyzing them? It is another common opinion that basic operations of addition and subtraction are sufficient for us to live by. "We need no math!!" seems to be the origin of life for quite a few people.

Ah, well, my dears, (it feels like sitting in an old granny's rocking chair as she narrates fables to little kids), It seems I will have to take the responsibility of clearing away your clouds of stupidity with my air of intellect.

Yes, maths might be the subject of the "high minds" but what makes you think that you are even an epsilon amount less than that (where epsilon is greater than zero, of course!) and isn't it so much better to try on a different question every time you pick up your pen instead of mugging the same thing again and again? Every new question brings with it a new concept, a new dimension of thought. It is a foolish assumption that people tend to make, that the only math we need is addition and subtraction. Hell no! Turn around, see the world, and don't just look at it. Everything is one or the other geometrical shape! Everything has a dimension, a mathematical equation with which you can recreate the same thing anywhere you want! The cute and cuddly heart that people can't resist putting up everywhere is actually a result of the equation, $(x^2 + y^2 + 1)^3 - x^2 y^3 = 0$

So yes, we need maths. Right from the clear blue sky dispersed with clouds to the buildings, to the trivial symbols we use in our conversation, the only thing that actually makes sense is maths, maths, and maths.

The next time I am asked about my course, I would really consider handing them this article first. Hopefully the look of horror will be replaced by a look of appreciation!

The President Speaks...

by Rhea Palak Bakshi

Being the Treasurer of the math department last year just wasn't enough for me. Working for the department last year had been so much fun and so much work that I wanted to be a part of the union yet another time. The universe seemed to go in accordance with my wishes when I was elected President of the department. Along with Meghna and Tanisha, the newly elected secretary and treasurer, I ventured into the unknown.

For a moment there I had believed that I knew what I was in for, but a few months down the line I have realized that this experience is quite different from what I had imagined it to be like. Being the treasurer previously, I had always been guided by Nikita, the President at that time. I had always done what she had told me to do and had it times been shielded from the onslaught of extra-strenuous work. Now I am standing in Nikita's shoes doing what she did and what all the erstwhile Presidents have done.

These few months have taught me a lot more than what the whole of last year did. Meghna, Tanisha and I have managed to do whatever little we have done in these few months. We made mistakes along the way. We got stressed, scared, lost hours of sleep and we consoled each other. We learned the right way to do things. The teachers have helped and guided us.

I shudder to think what would happen if someone got to know the behind-the-scenes working of the union. We miss lunches, sometimes classes, "people" fight and then get scolded by me (wink!) and then they apologise and I act proud and then they make cute baby faces and my heart melts.

It's as if we're constantly working against time. We change the venue of the day trip last minute and the mode of transport last second. We change the date of the Teachers' Day celebrations last minute. We even order the cake, flowers and do the room booking last minute (well obviously, since the date got changed last minute). The cake delivery boy also does not deliver the cake last minute and then I have to send someone to personally go buy it last minute.

We feel like scientists everyday, trying to find a formula that can optimize our spending and saving for the department with the meagre budget that we have.

At the end of each class I find 50 unread messages, on an average, on the union WhatsApp group. We're in correspondence throughout the day, so much so that they now figure on the "favourite contacts" list on my phone (even just Nikita and Mahesh or do). With time, they might even be successful in usurping my parents who currently hold the top two positions on the list. And if their best friends don't know where they are, I definitely know what part of the planet they're on, correct to the room, and know exactly what it is they are doing, even at some uncertainly hour of the night! Well, everything has its occupational hazards. Even Sonia Gandhi worries about whom to marry off her son to. After all, the legacy of corruption has to be passed on from one generation to another, right?

But at the end of the day, when an event comes to a close, when the raucous is all but over, the satisfaction we feel has no comparison. I bet even Shahjahan never felt so content with himself after the completion of the Taj Mahal. It's enough to guarantee us a long and dreamless sleep at night, actually many nights, before another event crops up and we go through the same sequence of events all over again! And finally, no matter what it is we go through, we love what we do. We work for the department and it is the best. We have the best faculty anyone could ask for, the best friends anyone could have and the department's love and support. It's nice when a math student walks past you in the corridor and smiles at you in recognition of who you are and what you do.

The department flag flies high!

FLAPPY BIRDS - The Sudden Outburst of Fame

by Piana Ningthoujam



Happy bird is the mobile game which went phenomenally viral this year in just a short span. This game was designed and built by Dong Nguyen, a developer who lives in Vietnam. Nguyen previously made a number of iOS and Flash games for his mobile studio Cears. The game is about a small bird, which the player has to keep floating in the air by tapping the screen and making it go through pipes, which look like the pipes in the game "Mario". Well, it sounds easy, but once you start playing, such a simple task gets ridiculously difficult.

Flappy bird first hit the Apple market. After it became really popular in the Apple market, people started asking for it to be released for the Android. When it hit Android Google Play, it hit like a tornado. People downloaded this game like crazy. Many claimed to have gotten addicted to it, and dramatically many have claimed to have hammered or clubbed their phones to smithereens. The funny thing about this game is that as popular as it is, this game is said to be really irritating and makes people angry, somehow. People tweeted about it saying they love and hate the game at the same time. This makes this game all the while curious and interesting.

For those who did not get a chance to play this game, it is your loss, because the game has been taken down from all the markets by the creator himself. He said that taking down the game is because of the people over rating it, and also a lot of hate tweets, mail, etc. came to him. After the end of Flappy bird, people have started selling phones on ebay and other sites with bonus of having installed the game.

On Racism - my diary entry

by Rabika Gurung

Date: 31st Jan, 2014



"It started off as a normal lazy weekend morning but the front page of the newspaper took away the little sleep I had in my eyes. The newspaper headline in bold said 'Arunachal student dies after racist attack in Delhi'."

The headline shocked me but what stupefied me more was the reason which led to the dispute and then the murder which was the "hair colour" of the innocent. Since when did hair colour start determining one's nationality? Is it that I was blind to this fact all through these 17 years? I fail to understand that even after 67 years of the nation's independence, the thoughts of the people are not independent at all.

If people are killed because of the way they look then it's a shame for the entire country because deep within, it's not only the fault of those murderers but that of the society as well, which has shaped people's mind."

Racism is so deeply entrenched in our skin. We need to fix it. As youths of the so called era of globalisation we need to think beyond caste, creed and religion and try to bring a small change and hope for a future devoid of such heinous crimes. Racism is not passed on genetically, but passed on through teachings.

As Nelson Mandela quotes-

"No one is born hating another person because of the colour of his skin, or his background, or his religion. People must learn to hate, and if they can learn to hate, they can be taught to love, for love comes more naturally to the human heart than its opposite."

Overpossessiveness by Abhijit Kaur

Many of us choose to adjust to the unreasonable demands of our parents, friends and more often our partners for the fear of losing them, even if they tend to stifle our lives.

A certain amount of possessiveness in natural and understandable but over possessiveness speaks of mental sickness. Usually, it is seen that a person becomes over-possessive in order to make up for being an under achiever. For instance a guy may be unsure of his girl friend's loyalty to him and so may tell her not to talk to any other guy friend.

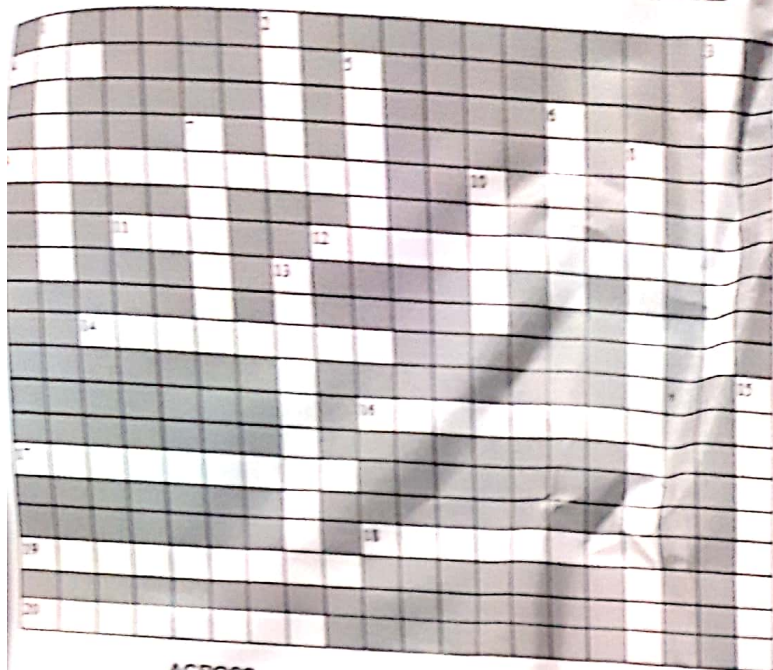
But this is not all. There are other times when it makes people get violent, if there is a threat to the way they want things. Over-possessive people can even harm themselves or the person they profess to care about if they do not listen to them.

Loving and caring does not mean that you own a person and set limits on him/her. This, in any way does not give you the right to infringe on someone else's breathing space and privacy. Any relationship becomes self-defeating and dangerous when over possessiveness creeps in.

Over-possessiveness usually attacks a person when he/she is not sure that he/she is good enough to be liked. Compliance with the wishes of such individuals convinces them that there is no threat to the relationship and they feel more secure.

So, dear reader, if you are an over-possessive parent, friend, brother, sister or lover- think again. For you may lose your object of affection sooner than you think.

MATHEMATICAL CROSSWORD



ACROSS

4. answer to an addition problem
9. answer to a subtraction problem
11. 3, 19, 37, and 131 are all ___ numbers
12. bottom number of a fraction
14. polygon with five sides
16. straight lines that never cross
17. having the same size and shape
18. shape of a soup can
19. distance around a figure
20. graph that uses bars to show information

DOWN

1. answer to a division problem
2. twelve
3. graph that uses pictures or symbols to show information
5. shape of a tennis ball
6. number added to another number to find a sum
7. answer to a multiplication problem
8. shape of a cereal box
10. nine ___ seven equals 63
13. 90 degree angle
15. top number of a fraction

Art Column by Rajenki Das



HOROSCOPE 2014

Aries
Fire
Leo
Sagittarius

Taurus
Earth
Virgo
Capricorn

Gemini
Libra
Aquarius

Cancer
Water
Scorpio
Pisces

For Fire Signs (Aries, Leo, Sagittarius), 2014 presents any number of surprises that will keep you on your toes. Uranus's presence in Aries means that you may be zinged every now and again with a revelation that makes you deeply reflective.

The year, as a result, follows a back-and-forth pattern of introspectiveness and action. One moment you may be out and about, full of motion and excitement. The next, you're touching base with people you love to gain "brain fuel" for the next big project. And then, out of nowhere... something else comes along that keeps you and your loved ones talking for hours! The things you learn and share thus continue to enrich your life in unpredictable ways.

The Earth Signs (Taurus, Virgo, Capricorn) year has an organic flow. Instead of the hurly-burly of throwing yourself into tricky situations, the art of effective communication will grow within you like a seed in the Earth. Though outside stimuli still have an effect, ideas have time to gestate slowly, growing almost of their own accord.

As a result, you gain an aura of "quiet wisdom." Even when you feel like isolating yourself from the outside world, you're still praised for the well-nourished concepts you bring to the table when you're ready. Pluto's year-long position in Capricorn charges your words and ideas with a natural, productive effectiveness... Whatever you have to offer, it'll be the right thing at the right time.

For Air Signs (Gemini, Libra, Aquarius), communication is more constructive. Talking and listening become like girders on a skyscraper - they're components of a larger and more important objective. You may not be stopping to smell the roses much this year, but you will remember how the roses smell anyway! In the meantime, you'll be gaining the satisfaction of watching your personal goals achieved little by little. There may still be the occasional hesitation, but the overall motion will be forward, propelled by the connections you make with friends and strangers alike.

Water Signs (Cancer, Scorpio, Pisces) have two beneficial planets taking up residence within them. Jupiter is in Cancer at the beginning of the year, and Neptune is positioned in cozy Pisces. Put them together, and they spell an abundance of expression. So much to say, so much to hear, so much to do, and so little time to do it in! With every word you give, you receive just as much in return.

So if you've taken it for granted before this year, communication will become your key to unlock doors you'd thought were sealed up for good!

A Picture Speaks a Thousand Words...

