math NEWS *

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A Scientific Report:
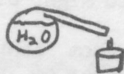
I. Introduction.

For years, the world's scientists have been puzzled concerning the centuries-old practices of Santa Claus. With today's advances in science, we can see Santa Claus in a new perspective previously unavailable.

II. Santa Claus.

First, we must arrive at a definition of Santa Claus and his activities. Santa Claus is said to be an old bearded man dressed in brilliant red clothing who drives a sleigh with ten or more reindeer. Many sources claim that Santa is fat, but a Canadian government source (Participaction) insists that Santa Claus is presently a thin, jolly character who wears a pillow under his suit for effect. Little wonder that Santa is a joyous character indeed, as many observations have testified.

It appears that the main purpose of Santa Claus is the distribution of gifts on Christmas Day (December 25) to all people on Earth. This is always done during the early morning hours (2-4 a.m.) to avoid discovery by little children. Using his aeronautical sleigh, Santa reportedly enters houses through the chimney. With today's profusion of apartment buildings, it is conjectured that Santa utilizes air conditioning vents, gas and water mains and windows to enter the houses. Some sources say that Santa has no trouble with nocturnal navigation because the leading reindeer on the sleigh team has a glowing, red nasal appendage which is believed to be a laser light source.

Other activities of Santa Claus include the operation of a manufacturing plant located 90 degrees North latitude as part of his Christmas activity. It is believed that presents for Christmas are made at this complex, and that Santa has large holdings in companies such as Mattel, Ideal, and Parker Brothers.

III. Transportation.

Santa will spend Christmas Eve delivering his presents. Santa has a long night ahead of him since he must follow the "path of darkness" around the Earth where the sun doesn't shine.

reflections
-through a beer bottle

Last week, the well-guarded vault of Labatt's was broken into, resulting in the loss of a "TOP SECRET document" (as quoted by Labatt's officials).

In its fervent search for news, a representative of this newspaper went directly to the conspirators. After consuming mega-amounts of coffee, we made a deal: 18 "valuable" WIDJET terminals (at least they thought so!), a CS prof, and four pi-shirts were traded for the following hot document:

To Prove: one full bottle of beer = one empty bottle of beer

Proof:

one 1/2 empty bottle = one 1/2 full bottle (try it!)
two 1/2 empty bottles = two 1/2 full bottles (multiplying by 2)
Hence, one empty bottle = one full bottle. Q.E.D.

It is obvious why Labatt's didn't want this truly amazing proof to be leaked out to the public (especially university students). But it is too late. Students everywhere should rejoice now that their search for free beer has ended. If you're an artsie, it will work for wine too. Let's hear it for fascinating fallacies!

P.Easta.

* ...and here it is!
(the news, that is)

Late Preregistration

Late preregistration for Year 1 and 2 students (excluding those in Applied Math with Engineering Electives, Applied Math with Computer Science, and Teaching Option) will take place from 1 to 4 p.m. on Friday, December 4th (today!) in MC5158. Be sure to bring a copy of your latest computer-produced timetable.

Spring /81 Work Reports...

...are available in MC5115. (I know this is an extremely short item - but that's all that was written on the notice in the third floor foyer that I copied this from. We print what we can get.)

Santa will theoretically go around the Earth in 24 hours, but the path of darkness is wide enough to allow Santa a few extra hours of present delivering. This gives Santa a total of about 28 hours in distribution of presents. Since the Earth's population is around 4.3 billion according to source estimates, that means Santa Claus will visit approximately 154 million people every hour, and Santa will serve an average of 43 000 people per second. Because of variable population densities, scientists cannot determine the speed of Santa Claus accurately. Therefore, you must trust a scientist when he/she says that Santa must travel faster than light to achieve his goals. We shall discuss the effects of such travel later.

Santa must serve those 4.3 billion people with presents which suggests thousands of cubic kilometres of space are necessary for Santa's sleigh. Scientists would rather believe that Santa goes back to the North Pole periodically to reload his sleigh with more presents. Scientists cannot bring the moon down with a magnet and Santa cannot load his sleigh with megatons of presents. So there.

IV. Does Santa Really Deliver?

Many people tell us scientists that Santa does not deliver the presents to everyone. Other people tell us that they buy the presents, and that Santa does not deliver presents on Christmas Day. In any case, sacientists have a simple explanation.

One-quarter of the world's population belongs to the scientific community. It is just a matter of bribing them to tell a different story to get the public off our backs while we do the sneaky research. You see, during Santa's Christmas delivereies, scientists use the latest entry and alarm defeating techniques to break into homes and take presents for scientific analysis. This yields us the same results every year, but we scientists think it's fun. Next time someone breaks into your home, don't call the police. Invite him in for tea and talk science. We'll love you for it.

V. Speed and Santa

As we have mentioned earlier, Santa travels at speeds which are faster than light. In supersonic aircraft, we know about the familiar sonic boom, but for Santa's sleigh, there is rarely optic boom since Santa's sleigh travels in darkness.

Many concepts of Einstein's Theory of Relativity can be applied to Santa's activities. Some scientists say that Santa Claus is the sole survivor of a collision between a meteor and a Federation Starship which will occur in the year 2327 A.D.. Time can actually be reversed in warp speed situations, and this would have affected Santa when the collision will take place. The future scientists will have developed time travel and life prolongation techniques that Santa might use.

From Santa Claus will come the scientific advances of tomorrow. Wow! That fries our minds!

VI. Alien Theory

Perhaps Santa operates with the resources of other worlds. Who else could master the scientific theories and advances which are beyond our comprehension? Scientists, that's who, and we want their knowledge.

The Unidentified Flying Objects (U.F.Os) could be scout ships for Santa to determine good and bad boys and girls, then their scientists will take the presents on Christmas, and not us scientists. Our scientists shudder at the thought of competition with beings from other galaxies.

The Earth's magnetic field may have been created by these alien beings to assist in the annual navigation of Santa Claus's journey. It is conjectured that this field is powered by some form of nuclear fusion plant below the North Polar Cap. (Yes, Virginia, but not like Three Mile Island.) Santa could conceivably control the electromagnetic spectrum upon which we pollute our television and CB. Scientists agree that this vital communications spectrum will remain if we are all good little boys and girls.

VII. Santa Clone.

An older theory has been drafted by scientists decades ago, long before Space Invaders. It was believed that there was not a single Santa, but a whole army of Santa's that would deliver all the presents at Christmas time. Further research discounted this theory as this was a human army, incapable of constructing the necessary rocket propulsion components that Santa's sleigh would have to have. Then there is the problem of manufacturing and bookkeeping at Santa's "workshop". How many thousands would have to be employed? Could the workshop be kept a secret? This theory, then, is unworkable. Besides, it's not as fun as the Alien Theory.

VIII. Conclusion.

Science has not unravelled all the mystery surrounding Santa Claus and his activities. Well, we'll get back to our labs, now, so that we can do some more research. In the meantime, Merry Christmas!

Cryptic Cryptogram

Solution to last week's puzzle

Midterms are like seasickness: you don't die from them, you only wish you could!

Saturday Morning Cartoons

Yes, folks, the Saturday morning cartoons for next fall are being produced now. It takes a lot of work and talent to make these spectacles, so pay attention to the new flock of entertainment for the kiddies.

"The Grape Ape/Zoppo the Stockbroker Hour"

Yes, it's the Grape Ape, with his new pal, Zoppo the Stockbroker. Zoppo is a new character that wears a clown suit while working at the NYSE. Watch the comic antics of his pals, Rippo the bank president, Jozzo the shareholder, and Big Cheese, their enemy. Great thrills, mindless dialogue. Great entertainment.

"The Scooby Doo/CSC Show"

It's Waterloo's own CSC, now in cartoon form with Scooby-Doo! This show has got to be hilarious.

"The Test Pattern"

A new live action series. A striped, multicoloured character that can only beep is presented for a half hour. There's not much plot, but the kids will be glued to the set like crazy!

"The Bugs Bunny/Pierre Trudeau Hour"

Children will enjoy the antics of the world's best known cartoon character, along with the antics of the world's most famous rabbit. Watch Bugs fool Elmer Fudd over and over again. Also watch P.E.T. and his pals fiddle while Canada burns. An hour of great fun is coming your way!

"Jason of Watsfic Command"

Located in the giant MC complex in Waterloo, Jason battles all futuristic enemy forces from his space centre on the third floor. He has survived D&D, Amoeba Wars and countless other dangers. In the opening one-hour special episode, Jason takes on the dreaded Plummer People of the planet E2, as he tries to recover the "log" for his friends.

"Tarzan and the Super Seven"

It's the famous jungle character Tarzan swinging about in the African jungle. With Tarzan, is the "Super Seven", a highly trained, superhuman group of mathies who get 80% and more on 4th year CS Graphics.

Don't forget our various specials coming up for the children this season as well. Here's a brief rundown.

"WIDJET Goes To Rome"

This 90-minute movie shows the antics of WIDJET as 1000 CS180 students buy it a one-way ticket to anywhere it wants to go. It chose Rome because it wanted to look into the eyes (and at the bodies) of the University of Rome female CS students. It winds up in some canal in Venice. Here, James Bond retrieves it and takes it to Q for examination. Q immediately pronounces it dead.

"Animals, Animals, Animals"

In this one-hour special, Hal Linden shows the children one of the more interesting species of animals, Engineerus Waterloo. He will show the strange mating habits of one of the sub-species commonly known as the Mechie, which performs its mating ritual with ewes. Other sub-species discussed are the Chemie, Elec, Systems, and Civie. This show will also deal with the development of a new sub-species, the Geological Engineer, by inbreeding.

Proof that all mathematicians are geniuses:

Lemma: given any set of k mathematicians, prove that they all have the same intelligence level.

Proof: The proof will be by induction.

If k=1 this is true (one mathematician is as smart as himself).

Now assume true for k=n and prove for k=n+1.

Let S be any set of n+1 mathematicians. Take any member A of this set and remove him. Then, all mathematicians in the set S - {A} are of the same intelligence (by assumption). Now, replace A and remove another member (call him, or her, B). Again, by the inductive hypothesis, all mathematicians in the set S - {B} are equally intelligent. Combining the above results gives us that all mathematicians in the set S are of equal intelligence; therefore, by induction, all mathematicians all have the same intelligence level.

Proof that all mathematicians are geniuses:

Consider the set of all mathematicians. Leibniz is certainly a member of this set, and he is certainly a genius. Also, by the above lemma, all mathematicians are of equal intelligence. Hence, all mathematicians are geniuses. Q.E.D.

Observations

Getting to Know People in Village Two

If you drive down Westmount from Columbia Avenue, right at the corner you will see two three-story bent buildings surrounding a central complex. These unusual shapes comprise Village Two.

Village 2, for those who have not had the honour of living there, is the newer of the student residences on campus. It houses 980 students in double rooms; 48 students and a don to each floor. The floors are named with a cardinal compass point followed by a letter from A to E.

I was chosen to live in Village 2 by the second-chance lottery in September. My experience there has not been unbearable, unlike the experiences of many others. Sure, weekends are totally wasted there, but things are not too bad during the week (unless there are assignments due Friday morning and your floor is having a party on that Thursday night).

The roommate draw is where many people can get screwed. Often you do not know your roommate until you arrive in the Village. Then it takes a while to discover that the two of you are incompatible. In this case, read the article by Grounded Lightning in mathNEWS, Volume 27, Number 6. Once you get to know your roommate, you start to look for other rooms on the floor where you can get away from him/her for a while (i.e., meet the other 46 people on the floor--you will usually have already met your don.)

Once you have found the peculiarities of the other people on your floor, it is time to move up one more level in the hierarchy. You must now get to know some of the rest of your quad. This process is easy. Go up (or down) the flight of stairs nearest your room. Try to open the floor door. If it doesn't open, you have it made. Start pounding, and someone will soon open it. There! Your first contact on another floor. If it is open and you are on a floor housing the opposite sex, just walk down the hallway and look in every open door. This will create some new friendships (possibly).

Another great way to get to know people is in the dining hall. Start by tasting the food. No matter how bad it tastes, say something to the effect of, "Hey! This is really good!" A comment like that is guaranteed to start conversation as the people next to you will say something like, "Hey, who are you? Are you crazy?" You now have the interest of everyone at the table and you can introduce yourself.

Now that you have made some contacts, people will get to know you better while you are getting to know them. You will soon learn that they think you are as crazy as you think they are, and will get a number of invitations to parties, etc. There is a slight catch: they cost. If you do not drink, see if you can get a cut price on the tickets for the parties.

Village 2 is not as bad as people claim. It can be noisy, but it is often quiet (except for North D (no, it's not my floor, it's the one above it (gee, nested parentheses look nice, don't they? (No they don't. -ed)))). Living in Village also allows you to partake in extracurriculars, such as mathNEWS, the Warriors Band, and various other things. But by far the best thing about Village 2 is that it forces you to meet other people and get to know them. My four-month stint in Village 2 is almost over--a work term awaits. Now that I have lived there, I can say that it is not an unpleasant experience.

This is my last column for a while. (I can hear the cheers already!) Thanks to everyone who made my first term here enjoyable. May your Christmas be a safe and happy one.

W. Jordan

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↑ ↖ I know... this is ugly... ↗ ↑

OOOOOOOOOOOOOOOOOOOOOPS!!!!!

Well, just when I thought I got my act straight, I made another blunder. This time, it's with the Cube-O-Wars. To start off, here's the corrections you should make:

In the x-direction clues, b16. turnkey should be b15. turnkey d10. should be the clue, 'No reply' e6. clue should be 'negative', not '$.05'.. and in z-direction, a12. clue should be 'Assistant Rutabaga Director'.

I apologize for any inconvenience that this may have caused.

Cube-O-Wars author
(see last issue's masthead for true identity)
(In the meantime, the Cube-O-Wars author is considering joining E. Siastes out in the Elora Gorge with his bear Ralph.)

A.   B.   C.   D.   E.
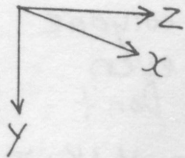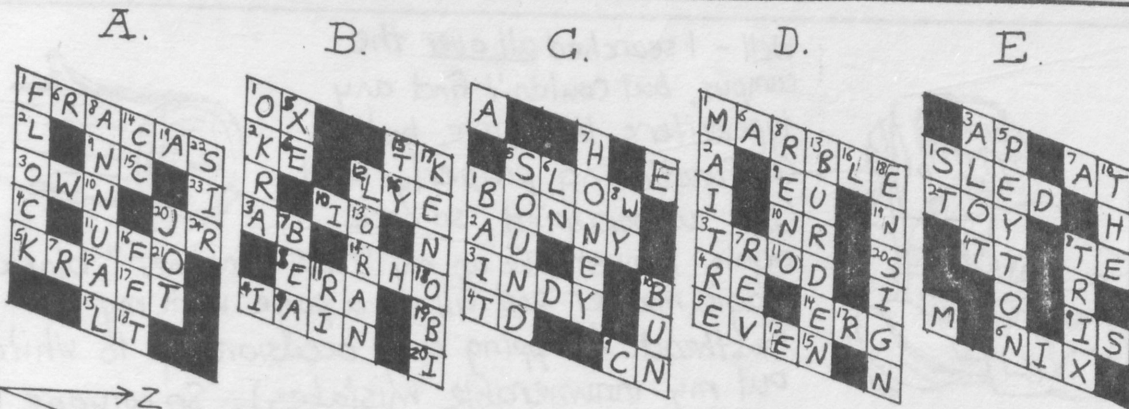
A long time ago...
In an imagination far away.....

The futuristic
3-D crossword
SOLUTION!

CUBE WARS

Killer Kwestions

If $abcd = 1$,

RTP: $a + b + 2c + 3d \geq 7\sqrt[7]{cd^2}$

(answer, printed upside-down)

ANSWER!
By A.M./G.M. Inequality;

$$\frac{a+b+c+c+d+d+d}{7} \geq \sqrt[7]{a \cdot b \cdot c \cdot c \cdot d \cdot d \cdot d}$$

$$\frac{a+b+2c+3d}{7} \geq \sqrt[7]{abc^2d^3}$$

But $abcd = 1$,

$$\therefore \; a + b + 2c + 3d \geq 7\sqrt[7]{abc^2d^3}$$

$$a + b + 2c + 3d \geq 7\sqrt[7]{cd^2}$$

Q.E.D.

CUBE-O-WARS WINNER!! Dave Thorpe won! Thanx to Ken Dreyer, Neil Campbell, Ken Sulston, gkloker, Adrien Stonell, Wayne Flood and Frank Bax who sent in solutions!

DARNED IF I KNOW WHAT'S WRONG!

HERE COMES A PROF, I WONDER IF HE COULD HELP!

KICK!! SMASH!! (Pause) CLICK!! BUZZ!! HUM!!!

CLICK-BUZZ... CLICK-BUZZ.... YOU GOTTA TREAT THESE LIKE STUDENTS!

Well - I searched all over the campus, but couldn't find any typewriters that were both (a) functioning properly and (b) unoccupied, so once again I must take up my "PILOT Fineliner" black magic marker and fill up a page with my masthead. (stopping only occasionally to white out my innumerable mistakes). So anyone expecting any Quality Journalism or even Mildly Interesting Entertainment should stop reading this now. Don't say I didn't warn you. This issue of mathNEWS marks the end of nine years (27 volumes) of the Mathematics Society Newsletter. (carriage return) Due to financial difficulties (which is a rather euphemistic way of saying "lack of cash", mN was only published biweekly this term, which was not a bad idea anyway; we didn't have to waste our time filling large quantities of cavernously empty blank spaces with vacuous filler (until now). I would like to take this opportunity to thank those of you who helped out with mathNEWS this term — especially (in alphabetical order) Richard Cleve, Jim Jordan, David Leibold, Glenn McFarlane and David Welbourn, who showed up regularly and spent some time on this paper; without their help, mathNEWS could never have appeared at all. Before I forget, here are this week's credits (sorry about the repetition): Jim Jordan (layout, diabloing, observations, addenda to "Cartoons"); David Leibold (santa, gridsolution, most of "Cartoons", layout, graphic on front); Glenn McFarlane (layout); jcwinterton (cryptogram solution); P. Easta (beer proof); Zorro (?) (genius proof); David Welbourn (who dropped in, but had to leave). Plus the files of old graphix, from which we borrowed liberally. I would have printed the questionnaire results here, but it appears that I botched the questionnaire rather badly; thanks to those who responded. Despite the errors, we received a good many suggestions and ideas for future issues.

Well, I appear to be near the bottom of the page, so all that remains for me to do is to say goodbye. It's been surreal, man.

— David Till, retiring editor.