DSA Newscast

In this issue . . .

The Dozenal Society of America is a voluntary, nonprofit educational corporation, organized for the conduct of research and eduction of the public in the use of dozenal (also called duodecimal or base twelve) in calculations, mathematics, weights and measures, and other branches of pure and applied science.

Other Non-Positional Notation

OUR PIECE reprising Gerard Brost's "Doman Numerals" produced a lot of response, and a lot of interesting ideas for other ways of dozenalizing Roman numerals, or of simply replacing them with a different non-Hindu-Arabic system.

Gene Zirkel (#67) reminded us that Brost's idea was actually hit upon, in a different way, long before Brost's article appeared in the BULLETIN. In 11ᔪᓍ, Br. Louis Francis, F.M.S., proposed a system of "Roman Dumerals" in one of our BULLETINS of the same year. The system used lowercase for dozenal and uppercase for decimal, and went as follows:

i	one
v	six
x	dozen
l	six dozen
c	gross
d	six gross
m	one great-gross

It's notable, of course, that the case distinction is untenable given the widespread use of decimal "romanettes" as subsection markers; but this system is otherwise identical to normal, decimal Roman numerals. Using *two* symbols prior to a higher-value symbol to indicate subtraction, one counts: i, ii, iii, iiv, iv, v, vi, vii, viii, iix, ix, x, xi . . .

John Volan (#41ᘔ) suggested a similar system, suggesting that making Roman numerals positional (as Brost does) would essentially deprive them of the "otherness" that makes them useful in formal situations. He also suggested that, if we're going to have a positional form of Roman numerals, we simply use Systematic Dozenal Nomenclature (SDN), which after all has a different letter for every rank. To refresh our readers' memories:

nil	N
un	U
bi	B
tri	T
quad	Q
pent	P
hex	H
sept	S
oct	O
enn	E
dec	D
lev	L

We would apply these in a normal, positional manner; so that right after King Louis L (*l*ev) came King Louis UN (*u*n *n*il). Thus, we have the last king of France with a number was Louis UH (*u*n *h*ex, 16, since Louis XVIII was the dozen-sixth of that name); the last pope was Benedict UQ (*u*n *q*uad, 14, since XVI is dozen-four); and the next Super Bowl will be Super Bowl QB (*q*uad *b*i, 42, since the next Super Bowl is the fiftieth). So who will be the QBs in Super Bowl QB? The competition is bound to be fierce!

Our friend Treisaran (not a member, but a great friend to dozenals who hales from Israel) described some other non-positional notational sys-

tems from closer to his part of the world, specifically Greek and Hebrew numerals, and how Hebrew numerals are used in Israel. To sum up, they are not dissimilar to how Roman numerals are used in the West, but they do seem to be largely less formal, used in a way similar to letters in our expressions "plan B." (Of course, Hebrew numerals *are* letters, and they count up in the same order as they are traditionally recited, as if we counted A = 1, B = 2, C = 3, and so forth, so this may contribute to their comparative lack of formality.)

My personal preference is to use SDN for this purpose; what do our readers think?

Society Business

Reminder: Annual Meeting for 11↋↋

Treasurer and Board Chairman Jay Schiffman (#2↊8) has been in Cincinnati this month, and has located a fine venue for our annual meeting. It will be held at the Embassy Suites Cincinnati-Riverfront at 10 E. Rivercenter Boulevard, Covington, Kentucky 41011. Our meeting itself will be on October 15, 11↋↋.

During the annual conference of the Ohio Conference of Teachers of Mathematics, we will be presenting a program on dozenals and other non-decimal bases; this will be on 13 or 14 October, 11↋↋, but we've not been notified precisely when at this time.

The Duodecimal Bulletin wn ↋2 Published!

At long last, we have the next issue of our *Bulletin* in hand! Whole Number ↋2 contains a great deal for our members to contemplate. Articles from our beloved Jay Schiffman, from John Volan, from Donald Goodman, and others fill the pages.

http://www.dozenal.org/DuodecimalBulletinIssue521.pdf

The issue, the first from our new editor, marks our first which uses the Pitman numerals, now part of Unicode; the first in which Systematic Dozenal Nomenclature is our default way of referring to numbers; and the first produced with the LaTeX document preparation system. We hope our membership enjoys what it has before it!

Subscription members, we have not forgotten you! Printed copies will be sent out to you in August.

Dozenal News

Practical Polygons, by Donald Hammond, Published

Donald Hammond, writing under the pseudonym "Troy," wrote a great deal in the well-remembered Dozenal Journal. This two-part article from 1196–97 explores the nature of number through the use of polygons:

http://www.dozenal.org/drupal/content/practical-polygons

This richly-illustrated and powerful article clearly demonstrates the basic nature of polygons, showing how twelve (and the unquagon) brings into itself the many perfections of two, three (and the trinagon), four (and the quadragon), and six (and the hexagon), along with many of the advantages of other numbers.

New Dozenal Videos

Youtube user "ParchitaFM" has posted two videos concerning our favorite number base, in March and April earlier this year:

https://youtu.be/snz-81omkFQ

https://youtu.be/ohmc3gfm7u8

The first of these is a remarkably entertaining and accessible explanation of bases in general, and the second a good beginning case for why dozenal is, in many ways, superior to decimal. Definitely worth watching, even for experienced dozenalists; they are quite entertaining, with respectable production values.

POETICAL DIVERSION

(We regret that we failed to credit the inspiration for last issue's Poetical Diversion: *Gunga Din*, by Rudyard Kipling.)

AN ODE TO THREE

O Three! Divine and sacred number Three,
the first of all odd primes, the first Mersenne;
alone, thou art the sum of smaller counts,
and with them, have the same product and sum!

O Three, the root of trigonometry,
by which the po'er of trigons is unlock'd,
a po'er which trigons have because of thee,
imparting on the shape the po'er of Three!

Key to three polyhedra's faces, too,
o'er half of them are trigons; and the rest
have vertices where faces three must meet,
and only three shapes can their faces be.

The first love of Pythagoras, great Three;
confounder of the ancients, who would spend

biquennia attempting to trisect
the angle; but it just cannot be done.

O Three! Great Gauss discovered that all counts
are sums of at most three triangulars,
and that the product of roots primitive
is "1 mod p" for all primes—but for Three.

O Three! E'en man's perception of the world
is bound entirely by thy confines;
we see all colors in the guise of three,
and three spatial dimensions form the world.

Thou truly art the greatest of odd primes,
and after Two the greatest of the them all;
Great Three! Our base will always honor thee,
and ever hold thee high, where thou belong'st!

DONATIONS

Members, please remember that while dues are no longer required for membership, we still rely on the generosity of members to keep the DSA going. Donations of any amount, large or small, are welcome and needed.

A donation of $10; ($12.) will procure Subscription membership, and entitles the payer to receive both a digital and a paper copy of the *Bulletin* if requested. Other members will receive only a digital copy. To invoke this privilege, please notify the Editor of the Bulletin, John Volan, at

editor@dozenal.org

As members know, we are a volunteer organization which pays no salaries. As such, every penny you donate goes toward furthering the DSA's goals.

It may be worth considering a monthly donation; say, $3, or $6, or whatever seems reasonable to you. This can be set up quite easily with Paypal or WePay, both of which are available at our web site.

Of course, if you prefer to donate by check, you may send them

to our worthy Treasurer, Jay Schiffman, payable to the Dozenal Society of America, at:

Jay Schiffman
604-36 South Washington Square, #815
Philadelphia, PA 19106-4115

Remember, too, that the DSA will likely soon be a 501(c)(3) tax-exempt organization; when this happens, your contributions will be tax deductible under applicable law.

FOR SALE

The DSA is pleased to offer the following for sale. These are all either at cost, or the proceeds go to the Society.

Item	Price ($)
Wall Calendar for 11ƐƐ, coiled binding	10.05
Weekly Planner for 11ƐƐ	8.29
TGM: A Coherent Dozenal Metrology	8.00

Prices are, unfortunately but by necessity, in decimal. To find these works, simply go to:
http://www.lulu.com/shop/shop.ep
and enter the appropriate terms. E.g., searching for "11EE" will turn up these calendars and the planner; searching for "TGM dozenal" will turn up the TGM book.

We hope to offer other titles, and even some other items (such as dozenal clocks and the like), in the near future.