



NMSR Reports

The Newsletter of the
New Mexicans for Science and Reason

NMSR Reports, David E. Thomas, Editor, 801 Fitch Ave., Socorro, NM 87801 © 2019

DECEMBER MEETING:

NEW MEXICANS FOR SCIENCE
AND REASON will hear

Dave Thomas

on “The War of the Weasels: How
an Intelligent Design Theorist was
Outfoxed by a Genetic Algorithm.”

7:00 PM December 11th, 2019

==>**CNM MAIN CAMPUS,**
Student Resource Center<==

==>**Room 204**<==

Bring a friend!

FUTURE MEETINGS ANNOUNCED

December 11th, 2019 NMSR Meeting:

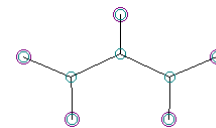
**Dave Thomas, on “The War of
the Weasels: How an Intelligent Design
Theorist was Outfoxed by a Genetic
Algorithm.”**



Dave Thomas will discuss the creationist assault on Genetic Algorithms, a class of computer programs that emulates evolutionary processes to solve difficult problems, and to design elaborate devices and drugs. Creationists of all varieties (including Intelligent Design proponents) claim that all such programs must



have the answers spoon-fed in from the start, and are not capable of finding truly innovative solutions. This invalid argument is based on the simple “Weasel” demonstration in Richard Dawkin’s 1987 book The Blind Watchmaker. Dawkins showed that a random process (like monkeys banging on typewriters) would never produce a detailed message like the line “Methinks it is like a weasel” from Hamlet. However, when cumulative selection was introduced into the process (via choosing the closest candidate for the “weasel” phrase to be the starting point for the next round), the process converges to the target phrase in just a few dozen rounds. Because Genetic Algorithms demonstrate the problem-solving power of evolution, creationists must deny them, and they all say that all such procedures need the answers to be provided to them. Dave will discuss his development of solutions to the Steiner problem, and how they clearly refute the creationist “target” attack.



Join us at **7:00 PM December 11th, 2019**,
CNM MAIN CAMPUS, Student Resource
Center, Room 204.

**January 8th, 2020 NMSR
Meeting:**

Professor **Peter Fawcett**, UNM
Earth & Planetary Sciences
department chair, on “The
Paleoclimate Records of New
Mexico.” 7PM January 8th, 2020.



New Mexicans for Science & Reason (NMSR)

NMSR is a non-profit group with the goals of promoting science, the scientific method, rational thinking, and critical examination of dubious or extraordinary claims. NMSR meets at 7 PM on the second Wednesday of each month, in Albuquerque, New Mexico, at CNM's Student Resource Center, room 204 (@ Richard Barr Boardroom). NMSR Reports is its official newsletter.

NMSR officers:

Dave Thomas, President

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Marilyn Savitt-Kring, Science Mom

Membership: \$25/year (hardcopy newsletter), or \$15/year (downloadable PDF), make your check payable to NMSR, send to treasurer (Debbie Thomas).

NMSR Advisors:

- **Mark Boslough**,
Physicist (Impacts, Climate Change,
Global Warming). Sandia National Labs.
- **Kendrick Frazier**
Editor, Skeptical Inquirer
- **John Geissman**
Professor of Paleomagnetism
- **Alan Hale**
Southwest Institute for Space Research
- **Randy Thornhill**
Professor of Biology, UNM

Cyber-Cypher Clue: W = Y, Z = V.

Bonus Puzzle Clue: 2C1, 4C2, etc.

WANTED: READER ARTICLES & COMMENTARY

Got something to share with NMSR members? Send it in! ATTN: Dave Thomas, Editor, NMSR Reports.

REMEMBER, our next NMSR meeting is at 7 PM on **WEDS., DECEMBER 11th, 2019**, at Student Resource Center, room 204 at CNM!

PUZZLE TIME!

[Please send solutions to Dave Thomas at: nmsrdave@swcp.com, or at 801 Fitch Ave., Socorro NM 87801.]

Cyber-Cypher: DECEMBER PUZZLE

(Submitted by Dave Thomas)

The following letters are a simple substitution cypher. If R stands for L, R will stand for L everywhere. Your Cyber-Cypher Clue: Clue? Oh, well - if you must, see p. 2.

" Y C B H Z H L , T G Q H R A Q T A T
F I N Q A A Y H W G F R R C A O H T M L H
B Y H A Y H L A Y H H F L A Y ' T
A H N X H L F A M L H Q T L Q T Q R S I M H
A C G W G P Q G F P X L C G H T T H T , C L
B Y H A Y H L Y M N F R T F L H
Q R E P M H R G Q R S Q A . " - I H Z Q R
R M R H T

SUPER SECRET WORD!

However you prefer to do the cypher itself (above or below), simply duplicate those actions on the alphabetized row of cypher letters below. You'll build an answer key, and you'll also reveal - the Super Secret Word!

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

NOVEMBER CYPHER SOLUTION

"SCIENCE IS THE KEY TO OUR FUTURE, AND IF YOU DON'T BELIEVE IN SCIENCE, THEN YOU'RE HOLDING EVERYBODY BACK." - BILL NYE

Esteemed November Code Crackers: Mike Arms*, Terry Lauritsen* and Austin Moede*!

*Secret Word: "FOLK GRAB DESTINY"

SOCORRO STUMPER

Need more Secret Word Cryptograms?

New puzzles every week at
www.nmsr.org/SocorroStumper.htm



October Bonus: “Fantastic Football Picks”

Alissa and Greg are participating in an office NFL pool. This week, with 14 of 16 games played so far, they are tied for first place, with 12 correct picks each. For the remaining two games in the week, Greg and Alissa have chosen different teams for both games.



The December Bonus: (A) What is the probability that Greg and Alissa will be tied at week’s end?

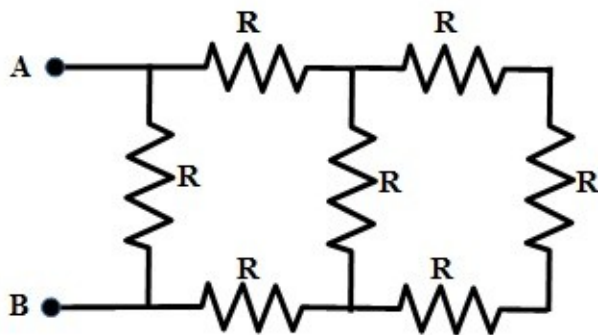
(B) If there were *four* games remaining, and Alissa and Greg picked different teams for all four, what is the probability that Greg and Alissa will be tied at week’s end?

(Extra Credit) If there were n games remaining (n = any positive even number), and Alissa and Greg picked different teams for all n , what is the probability that Greg and Alissa will be tied at week’s end?

(Assume that overtimes will be used until a clear winner emerges for each football game; no ties allowed.)

December Bonus : “Vive la Resistance”

Submitted by Dave Thomas



The November Bonus: if the resistances R in the circuit above all equal 15 ohms, what is the resistance between contacts A and B?

Answer: 11 Ohms.

Congrats: Eiichi Fukushima (NM), Harold H. Gaines (KS), Allen Robnett (NM), Keith Gilbert (NM), Gene Aronson (NM).

November 13th, 2019 NMSR Meeting: Ben Radford, on “The Long Island Medium.”

Ben Radford's topic for November was TLC's "Long Island Medium" Theresa Caputo, who appeared in New Mexico, at the Isleta Resort & Casino, on October 26th. Ben is deputy editor of *Skeptical Inquirer* science magazine, and a Research Fellow with the non-profit educational organization the Committee for Skeptical Inquiry. He has written numerous books and articles on skeptical investigations and the paranormal.

Steve Brügge started the evening with a



demo of clever paper cutting wizardry. Ben then introduced his topic, remarking that he has been investigating

psychics like Sylvia Browne and John Edward for 20 years. These mediums are *performers*; their readings are carefully improvised acts of necromancy and mediumship.

One of Ben's first encounters with mediums was at a place called “Inspiration Stump,” where psychics (once) gave free readings. Two to four mediums were present, and it was open to the public. Ben observed that the in-person dynamics were important, and subtle nuances were supreme. Some of the mediums performed better than others. Sometimes the clues were fairly obvious; for example, one medium told a black obese woman that she was suffering from diabetes.



Ben's main interest in psychics are the “psychic detectives” who claim to be able to find missing or murdered persons. These are the most “toxic,” in Ben's opinion. Theresa Caputo, the “Long Island Medium”, is in a different class, and Ben suspects that she and many other mediums actually believe in their own abilities.

Caputo’s performances are a blend of showmanship, psychology, and scam. Ben thinks that she, like many other psychics, believes her powers are genuine. Medium John Edward is most likely a scammer; when Ben used a hidden



microphone to tape Edwards, the psychic signed the same book, and had no clue as to its real contents. In Caputo’s case, she “discovered” her powers when she attended a session by “spiritual leader” Pat Longo, who said Caputo had the Gift. Caputo accepted Longo’s pronouncement. Now, her “spiritual energy” shows her signs and symbols, which she interprets for her audience. She adjusts her interpretation of the “signs” based on audience feedback. Since her listeners are themselves believers, they reinforce and ratify Caputo’s readings, which feed back into her self-confidence as a medium. Nothing is ever falsified. It’s a perfect storm of how to generate belief in psychic powers.

Ben said psychics use several techniques (some unconsciously). These include Cold Readings (using obvious clues like age, diabetes, etc.), Hot Readings (active data collection before the show; see, for example, Randi’s article “Peter Popoff Reaches Heaven Via 35.19 MHz”), Retrofitting (wherein the audience members make the psychic’s “signs” fit in), and Delayed Confirmation (“You’ll see, later on.”).

Caputo showed up 15 minutes late at Route 66. After the national anthem, and a clip from her TV show, she “read” 12 people (more women than men). 3,000 people attended, at \$90 apiece. Caputo probably earned \$100,000 for the evening. She has a Martyr complex, and feels she is a giver, resolving conflicts. And her audience eats up every minute of her show.

NMSR thanks Ben Radford for a riveting presentation.

DUES check the date on your mailing label. If it's time for you to renew, or to make a contribution, please make your check payable to NMSR, and send it to Debbie Thomas, NMSR Treasurer, 3205 Alcazar NE, Albuquerque., NM 87110
 Name _____
 Address _____
 Membership \$25 per annum (hard copy newsletter), or \$15 per annum (online newsletter).

Fall Skeptiverse Haiku! by Keith Thomas

Will our border states Get to vote/On the snake and Gator border moat?	The science suggests That vitamins be taken With a pinch of salt.
Which physics concepts Can help us to comprehend The nothingburger?	How many buildings, Triskaidekaphobicly, Hide their thirteenth floor?
Science trumps beliefs; Should President Trump’s beliefs Get to trump science?	No Bio-Uplinked Long Life Sonic Harmonic Immersion Treatments!

The NMSR e-mail list is fun! It’s an e-mail list with news announcements of interest to NMSR members, discussions about news of the times, and more. To join, send a request to nmsrdave@swcp.com.

Thanks to: John Covan, Eddy Jacobs, Debbie Thomas, Keith Thomas and all our Puzzlers!

IN THIS ISSUE:

Future Meetings
Announced
New Puzzles!
November Meeting:
Psychic Theresa Caputo,
the Long Island Medium
New Haiku!

DEC. 11TH 2019
NMSR MEETING
Dave Thomas on
"The War of the
Weasels"
7PM

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