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RED HERRING ALERT. JA. E-16 Bazerics

\*COPST - Contribution of Personal Solving Techniques

**\*COPST – The most common letters in a word in order of frequency.**

**ZANAC**

**First,** T, O, A, W, B, C, D, F, S, M, R, H, I, Y, E, G, L, N, O, U, J, K.

**Second,** H, O, E, I, A, U, N, R, T,

**Third,** E, S, A, R, N, I.

**Last,** E, S, T, D, N, R, Y, F, L, O, G, H, A, K,,M, P, U, W.

**Most common double letters in order of frequency,** SS, EE, TT, FF, LL, MM, O

**Recreational Mathematics – Hailstone Numbers – Enjoy!**

**APEX DX**

This attractive investigation of mathematical activity, known as the **Hailstone Numbers** for its up-and-down movement like a hailstone in a cloud before reaching ground, has attracted awareness for over seventy years. Choose an odd or even number. If it is even, divide it by 2. If it is odd multiply it by 3, then add 1. Repeat the process with the number that you obtain. Continue to a sequence of a positive whole number. Stop only when you reach 1. All numbers that take you to 1 are **Hailstone Numbers**. Example: Starting with the number, 15. Your sequence is: 15, 46, 23, 70, 35, 106, 53, 160, 80, 20, 10, 5, 16, 8, 4, 2, 1. Your sequence rises to a high of 160 and does reach 1 in 16 steps. Try 100 (25 steps), 27 (34 steps), try 31 (ouch)..Are all numbers greater than 1, **Hailstone Numbers**? Can you spot useful patterns? Can you sense the possibility of building an encipherment process? I once had a young student that did his mathematical Master's thesis on **Hailstone Numbers**. There has to be more to hailstones than meets the eye!

**Free Code and Cipher Books –Place an order. The mailing is also free.**

*Codes, Secret Writing* - Gardner

*Cryptanalysis* – Helen Gaines

*Crypto & Spygrams* – Gleason

*Cryptography* – Dwight Smith

*Find Out about Secret Codes* – Beal

*Fun with Secret Writing* - Lamb

*Invitation to Cryptograms* –Williams

*Mad Scientists Club* – Brinley

*Names Index*, Enterprise Publishing

*Reader of Gentlemen's Mail* – Kahn

*Secret & Urgent* – Fletcher Pratt

*Secret Codes & Ciphers* – Kohn

**Twelve Years of Age and Under**

*Alvin's Secret Code* – Clifford Hicks

*Break the Code* – Bud Johnson

*Code Crackers* – Kieran Fanning

*Secret Agent Activity Book* – Elder

*Secret Codes Kit* – Robert Jackson

*Secret Codes Kit* – Slinky Inc.

**Gimme a Break – SO Aristocrats (may be digraphs / trigraphs) (1) unless otherwise stated**

A-1, that, the (2), A-2, that, the, A-3, advice, A-4, why, A-5, the (6), A-6, th (4), the, A-7, ing (3), A-8, the (2), A-9, that, the, A-10, and, A-11, for (2), A-12, that, A-13, that, A-14, the (3), A-15, the (2), A-16, "p" alliteration, A-17, ou (3), A-18, the (2), A-19, an (6), A-20, WDXWDWBCN, A-21, and, A-22, the, A-23, Life, A-24, bar, A-25, Evil.

**Gimme a Break - SO Patristocrats (may be digraphs / trigraphs) (1) unless otherwise stated**

P-1, th (2), P-2, that, the (4), P-3, the (2), P-4, in (3), P-5, the (2), P-6, that, the, P-7, the (4), P-8, the (2), P-9, the (2), P-10, the (2), P-11, the (2), P-12, th (3), those, P-Sp-1, the (2), wise, P-Sp-2, "b" alliteration, banjo.

**JA. A-12. A not very kind observation. K2 (78)**

**L. TWIN**

Few pattern words exist for UWXOVODOIV and AWUFVUPVTL. Determine which ones contain the same letters.

**JA. P-11. Best avoided. K3. (98/19) (FCEY)** **ANCHISES**  
 Contains three words with the most common double letters in the English language, “ss (ending), mm, oo.”

**JA. X-10. French Fractionated Morse. The House. (permettait)** **PARROT**  
 There are multiple possible crib placements on this construction but position 152 (second row) will generate a complete “T” through “Z” key alphabet arrangement which will lead you to a final solution.

**JA. X-11. Esperanto Nicodemus. Lawyers! (Period eight) (civilaj)** **GGMA**  
 Nicodemus converted to Vigenere, compliments of **MSCREP**:  
 JXBVSSMC SYAIKEO WOXHRUBJ RFGQLWEW TNASWBXZ TCKZRMZV RMZVLWOO  
 BHKJMEXS BNOLTWDH RNGPVLXF RFOTMEVY JLRLAUTZ NVIVTLHB .

**JA X-12. German Bifid. Oscar Wilde quote. (man eine wirklich)** **THE DOC**  
 Google Oscar Wilde quotation with “man eine wirklich” to retrieve most of the plaintext.

**JA. E-1. Homophonic. Top-level WW2 system. (used)** **EL CONDOR**  
 Four letter keyword begins with “M” and ends with :H.”

**JA. E-8. Fractionated Morse. Breaking news. (my lawyer)** **L. TWIN**  
 A good example of the importance of paying attention to construction titles. This one exposes the key.

**JA. E-11. Quagmire II. From the stars to the deep. Period 5. Don’t let the “Edm” start intimidate you. SCRYER**  
**BION**

**JA. E-12. Phillips. Don’t waste your time. (cannever)**  
 A challenging cipher from one of the ACA’s most diabolical constructors. The crib is placed at NETTS BSA and the plaintext begins, “All the.....” Look for the word “subtile” referenced in the Editor’s *Over the Desk* column.

**JA. E-13. Unknown. Around the Med. (active seafaring race)** **CRUX**  
 Identify this unknown by a missing cipher in this issue that appears in most Cipher Exchange columns. Crib is placed at position 25 and plaintext begins with that popular three letter word.

**JA. E-15. Portax. A subject worth study? Period Eight. Plaintext begins, “The.....”** **BION**

**JA. E-16. Bazeries. Not one of the seven. (forty times more)** **G-MAN**  
 RED HERRING ALERT. Our devious constructor has thrown a wrench into this Bazeries construction by using the letter “j” in the plaintext early in this message. Be aware that the letters “i and j” share the same cell in the Bazeries plaintext 5 x 5 block. A six digit key adds to the challenging presence of this well-constructed cipher.

**JA. E-18. Quagmire III. Don’t dig there. (Amateurarchaeologist)** **TSIOLKOVSKY**  
 Period 5, crib placement position 35, plaintext begins “In a.....”

**JA. C-14. Addition. (Two words, 0-9)** First word, six letters ends “R,” second word begins “T.” **LIONEL**

**SO. A-24. Tavern fight. Title suggests plaintext words, “Bar, bouncer, brawl, drunk, etc.”** **OZ**

**SO. P-10. Where demons are found. “Demon’s Librarian” Chapter 1, paragraph 14 for lots of plaintext.** **GGMA**

**SO. E-1. Ragbaby. Anonymous Limerick. (odd fellow)** **WORD WIZARD**  
 Limerick lovers will recognize the three words which appear before the crib placement. It’s downhill from there.

**SO. E-3. Beaufort. Linguistic isolation. Period Eight with plaintext start of “The.....”** **CRUX**

**SO. E-4. Porta. Coiffure economy. Period Seven. Plaintext begins “Cu.....”** **AURION**

**SO. E-5. Amsco. Period Five. Astin Newsome quote.** **TSIOLKOVSKY**

**SO. E-6. Nihilist Tramp. Believe only in reality. Vertical listing of ciphertext. “X” identifies last line.** **OOBOO**

**SO. E-7. Fractionated Morse. From the Gavel. (merely because)** Crib placement, position 61. **L. TWIN**

**SO. E-10. Redefence. Uncomfortable thieves. Period Five with plaintext start of “The....”** **RIG R MORTIS**

**SO. C-9. Sudoku. (Three words) Solution in first row with plaintext start of popular “Th.....”** **L. TWIN**

**SO. C-12. Duodecimal Additions. (Three words, 0-1)** **APEX DX**  
 T + T = T, in the second and third additions, = T implies that 11 + 11 with a carry-over of 1 == 11 in duo decimal arithmetic, thus T = 11. If T = 11 then Y must = 1 for S to = S in the third addition problem. Examine why M and W and O and S must be consecutive D an odd number in the first addition sum. First letter of first word in key = E.

Sunny Cipheryng, LIONEL

cc: ACA Executive Board