The Enigmatic Machine [SOMEWHAT OF A SOL. DOC]

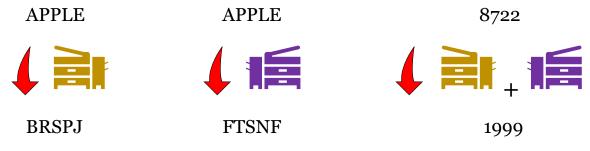
These repeat transmissions seem to add up... but I could only get the first letter so far.

PLEASE REFER TO THE LOEVINGER DOC FOR A MACHIINE-BY-MACHINE RUN-THRU

RED = #FF0000

BLUE = #0047AB

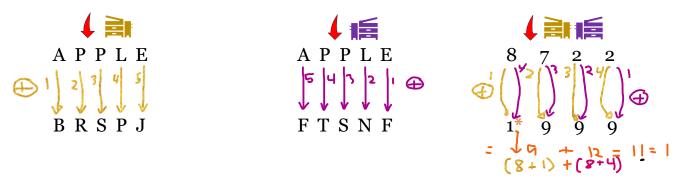
All colors can be double-checked or double-dipped for accuracy with www.colorhexa.com
All sites are lowercase



THE MECHANISM OF THE FUNCTION:

THE PUZZLE IS ALL ABOUT FIGURING OUT HOW TO BACKSOLVE THIS IMAGINARY FUNCTION BOX WHICH IS SHOWN IN 3 INITIAL EXAMPLES. The function described shifts the top letters by a sequentially increasing amount. THE "LEFT-FACING FUNCTION" starts the shift from the left and works right, and the "RIGHT-FACING FUNCTION" does the opposite. The ARROW COLOR showcases the initial value of the shift, which increases in a Fibonacci sequence.

EACH LETTER IS COUNTED AS A SEPARATE DIGIT. ANY OVERFLOW IS TREATED TO THE MOD. OF THAT COUNTING SYSTEM (26 for letters, 10 for nums) (* for examples)

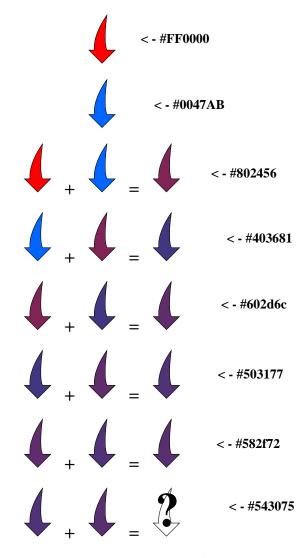


WHEN IT COMES DOWN TO IT, FOR ANY LETTER OR NUMBER A (in an input of n values), THE (red arrow)

DOUBLE FUNCTION = [2(A) + (n+1)] %10 (or %26 in context of letters)

TO EXPLAIN THE HEX COLORS:

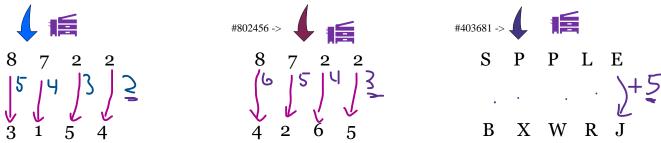
Each color is gotten as a fibbonaci addition of the two seed colors, red and blue on www.colorhexa.com



Something that will be a common mis-step for the puzzlers: **the hexadecimal code is just to keep track of the exact color value to make sure you know that it is truly Fibonacci.** The only time the color code is needed to solve the puzzle is on the later website bit where it blatantly asks for the question mark's color code.

What the colors do though is alter the equation's initial shift by an increasing Fibonacci amount:

EXAMPLES OF DIFF. ARROW COLORS:



IN THE END.... Imo best way to think about the function

DOUBLE FUNCTION = [2(A) + (n+1) + 2F(n)] %10 (or %26 in context of letters)

NOW ... TO BACKSOLVE!!!!

EACH LETTER ON THE BOTTOM GIVES 2 POSSIBLE LETTERS UPSTAIRS DUE TO A +26/+10 MOD SHIFT

EUREKA THE CONSTANT IS 31415



IOIIUA MOI ECAKMAAM QK 17375

E35555 555 5555555 55 55555



KQKKWC OQK GECMOCCO SM 39597

E55555 555 55555555 55 55555



MSMMYE QSM IGEOQEEQ UO 51719

E55555 555 55555555 55 55555



QWQQCI UWQ MKISUIIU YS 95153



WCWWIO ACW SQOYAOOA EY 51719

GMGGSY KMG CAYIKYYK OI 51719

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WCWWIO ACW SQOYAOOA EY 17375

 $do\hbox{-}you\hbox{-}wonder\hbox{-}what\hbox{-}comes\hbox{-}next$ 



#### SITES IN ORDER:

https://www.peapuzzlehunt.com/uq-kqc-gqouww-gcoa-sqmwy-owia

The Führer is trying to fool us again! He has scattered the decryption code across multiple hidden pages on this site...

Let's see if this works:

www.peapuzzlehunt.com/enigma-[the constant]

→ Pi is the "constant" from the Eureka repeats. This is just to prove that they know how to backsolve

www.peapuzzlehunt.com/enigma-pi



→ ? color is #543075. This is just to prove that they know how to fib. Add the colors

www.peapuzzlehunt.com/enigma-543075



→ Now the final puzzle. A specific backsolve for the color right before the question mark color. The answer of what is a real word is purposely hard, and, miraculously, ABJURER and NOWHERE both work!! (hinted by the side note)

www.peapuzzlehunt.com/enigma-abjurer



Witch

www.peapuzzlehunt.com/enigma-nowhere

Sand

**ANSWER: SANDWICH**