

PTOFBMPN (Periodic Table Of Fractal-Based Mersenne Primes - Perfect Numbers): Eliminate +y

Table with columns for Line #, +y, x, and values for z (1, 3, 7, 15, 31, 63, 127, 255, 511, 1023, 2047, 4095, 8191).

Eliminating the +y converts Table 120/121 from z_next to PN_next as:

(xz+y)-y=xz=PN

let n=0,2,4,6,...EVENS and p=based on PN#

(2^n * PN) + (2^p-2 * 4PN) = PN_p where 4PN= and 1-6-28-120-496 are PN & *PN is in 2nd PLL Diag.:

4*0=0, 4*1=4, 4*6=24, 4*28=112, 4*120=480, 4*496=1984... Follow DIAGONALLY on the Table above. BLUE=PN GREEN=2PN=CR

(2^n * PN) + (2^p-2 * 4PN) = PN_n for p=2, PN=6 2nd PLL Diag

Small table showing calculations for p=2, PN=6: (1*6)+(1*4)=6, (4*6)+(1*4)=28, (16*6)+(1*4)=120, (64*6)+(1*4)=496, (256*6)+(1*4)=2016, (1024*6)+(1*4)=8128.

(2^n * PN) + (2^p-2 * 4PN) = PN_n for p=3, PN=28 3rd PLL Diag

Small table showing calculations for p=3, PN=28: (1*28)+(2*4)=44, (4*28)+(2*4)=120, (16*28)+(2*4)=496, (64*28)+(2*4)=2016, (256*28)+(2*4)=8128, (1024*28)+(2*4)=32640.

(2^n * PN) + (2^p-2 * 4PN) = PN_n for p=4, PN=120 4th PLL Diag

Small table showing calculations for p=4, PN=120: (1*120)+(4*4)=148, (4*120)+(4*4)=520, (16*120)+(4*4)=2016, (64*120)+(4*4)=8128, (256*120)+(4*4)=32640, (1024*120)+(4*4)=130816.

(2^n * PN) + (2^p-2 * 4PN) = PN_n for p=5, PN=496 5th PLL Diag

Small table showing calculations for p=5, PN=496: (1*496)+(8*4)=520, (4*496)+(8*4)=2016, (16*496)+(8*4)=8128, (64*496)+(8*4)=32640, (256*496)+(8*4)=130816, (1024*496)+(8*4)=523776.

4PN+2^p=2CR+2^p=PN_next ****

The "p" value comes from 1-6-28...in the equation (NOT the result)

Handwritten notes: 4x1+2^1=6, 4x6+2^2=28, 4x28+2^3=120, 4x120+2^4=496, 4x496+2^5=2016, 4x2016+2^6=8128, 4x8128+2^7=32640, 4x32640+2^8=130816, 4x130816+2^9=523776, 4x523776+2^10=2096128, 4x2096128+2^11=8386560, 4x8386560+2^12=33550336.

This gives PN_next

2^4=16 and 2^4-2=12=6*4=8*3

16PN+(2^4-2)(24)=PN_next_next ****

The "p" value comes from 1-6-28...in the equation (NOT the addition or result)

Handwritten notes for p=4: (16x1)+(2^4-2)(24)=120, (16x6)+(2^4-2)(24)=496, (16x28)+(2^4-2)(24)=2016, (16x120)+(2^4-2)(24)=8128, (16x496)+(2^4-2)(24)=32640, (16x2016)+(2^4-2)(24)=130816, (16x8128)+(2^4-2)(24)=523776, (16x523776)+(2^4-2)(24)=2096128, (16x2096128)+(2^4-2)(24)=8386560, (16x8386560)+(2^4-2)(24)=33550336.

This gives PN_next_next

Vertical list of mathematical expressions and formulas related to the fractal-based Mersenne primes and perfect numbers.