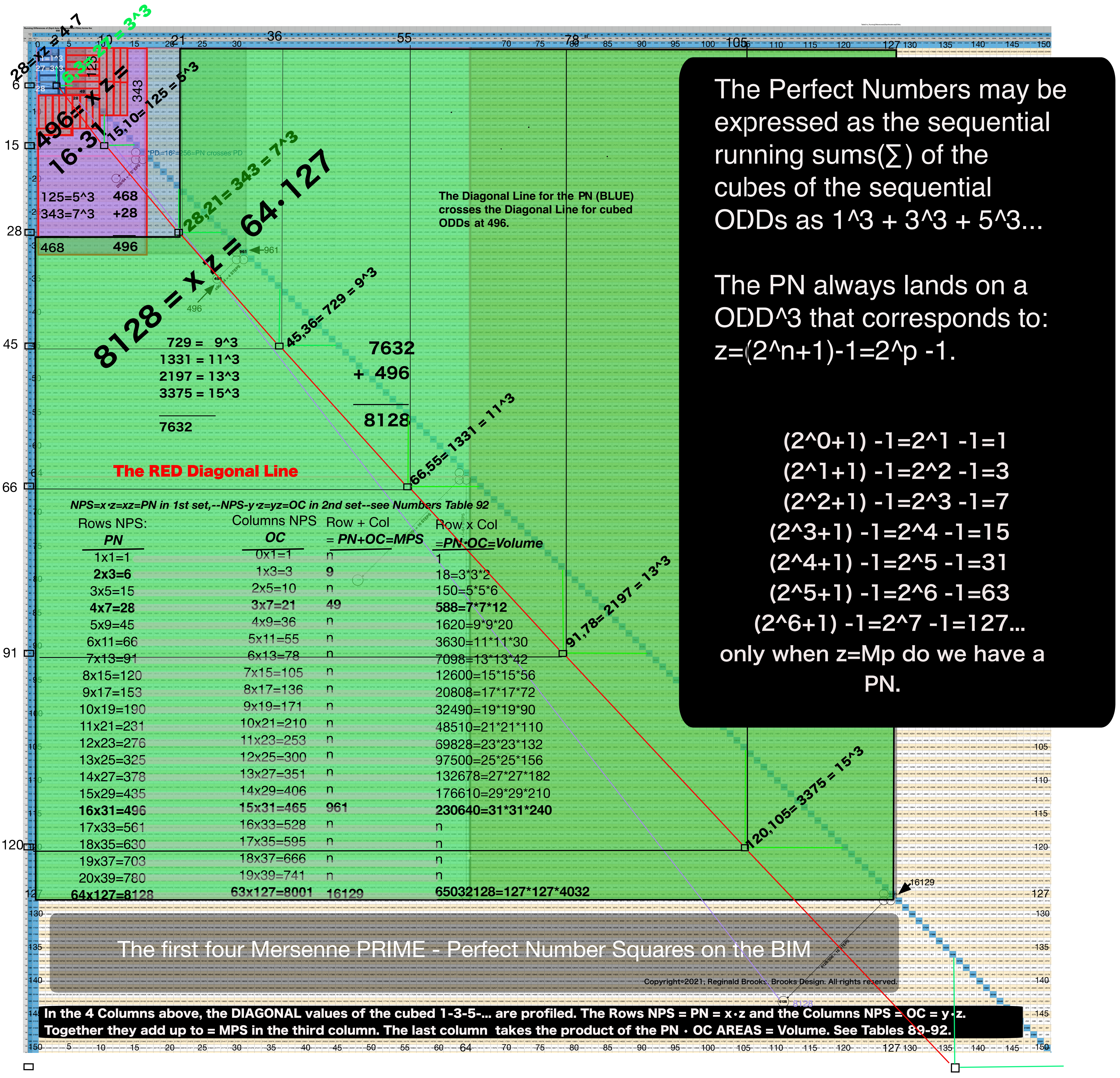

The Perfect Numbers may be expressed as the sequential running sums(∑) of the cubes of the sequential ODDs as 1^3 + 3^3 + 5^3...
The PN always lands on a ODD^3 that corresponds to: z=(2^n+1)-1=2^p -1.
(2^0+1) -1=2^1 -1=1
(2^1+1) -1=2^2 -1=3
(2^2+1) -1=2^3 -1=7
(2^3+1) -1=2^4 -1=15
(2^4+1) -1=2^5 -1=31
(2^5+1) -1=2^6 -1=63
(2^6+1) -1=2^7 -1=127...
only when z=Mp do we have a PN.
28=xz=4.7
6^3=27=3^3
496= x z =
16.31
15,10=125=5^3
343
125=5^3
343=7^3
468
+28
468
496
28,21=343=7^3
8128 = x z = 64.127
The Diagonal Line for the PN (BLUE) crosses the Diagonal Line for cubed ODDs at 496.
45,36=729=9^3
729 = 9^3
1331 = 11^3
2197 = 13^3
3375 = 15^3
7632
7632
+ 496
8128
66,55=1331=11^3
The RED Diagonal Line
91,78=2197=13^3
120,105=3375=15^3
16129
NPS=x·z=xz=PN in 1st set,--NPS-y·z=yz=OC in 2nd set--see Numbers Table 92
Rows NPS: PN | Columns NPS OC | Row + Col = PN+OC=MPS | Row x Col =PN·OC=Volume
1x1=1 | 0x1=1 | n | 1
2x3=6 | 1x3=3 | 9 | 18=3*3*2
3x5=15 | 2x5=10 | n | 150=5*5*6
4x7=28 | 3x7=21 | 49 | 588=7*7*12
5x9=45 | 4x9=36 | n | 1620=9*9*20
6x11=66 | 5x11=55 | n | 3630=11*11*30
7x13=91 | 6x13=78 | n | 7098=13*13*42
8x15=120 | 7x15=105 | n | 12600=15*15*56
9x17=153 | 8x17=136 | n | 20808=17*17*72
10x19=190 | 9x19=171 | n | 32490=19*19*90
11x21=231 | 10x21=210 | n | 48510=21*21*110
12x23=276 | 11x23=253 | n | 69828=23*23*132
13x25=325 | 12x25=300 | n | 97500=25*25*156
14x27=378 | 13x27=351 | n | 132678=27*27*182
15x29=435 | 14x29=406 | n | 176610=29*29*210
16x31=496 | 15x31=465 | 961 | 230640=31*31*240
17x33=561 | 16x33=528 | n | n
18x35=630 | 17x35=595 | n | n
19x37=703 | 18x37=666 | n | n
20x39=780 | 19x39=741 | n | n
64x127=8128 | 63x127=8001 | 16129 | 65032128=127*127*4032
The first four Mersenne PRIME - Perfect Number Squares on the BIM
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In the 4 Columns above, the DIAGONAL values of the cubed 1-3-5-... are profiled. The Rows NPS = PN = x·z and the Columns NPS = OC = y·z. Together they add up to = MPS in the third column. The last column takes the product of the PN · OC AREAS = Volume. See Tables 89-92.