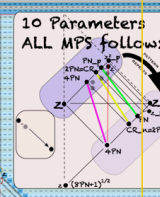


Using the Column values of the PTOFBMPPN—  
after converting to PN— generates the very same  
"BIM150-MPS-10parameters-" matrix on the BIM.

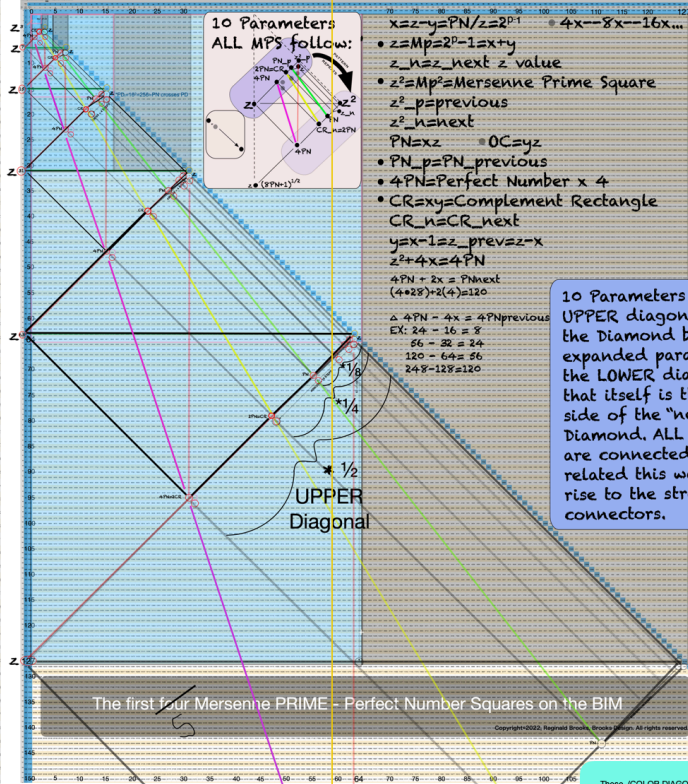
Additional lines are added to bring out the  
Diamond-shaped MPS.

**10 Parameters  
ALL MPS follow:**

- $xz=y=PN/z=2^P$  expansion\*
- $z=MP=2^P-1=x+y$
- $z_{next}$  next  $z$  value
- $z^2=MP^2=$ Merseus Prime Square
- $z^2_{prev}$  previous
- $z^2_{next}$  next
- $PN=xz$   $OC=yz$
- $PN_{prev}=PN_{previous}$
- $4PN=$ Perfect Number  $x \cdot 4$
- $CR_{next}=$ Complement Rectangle
- $CR_{prev}=CR_{previous}$
- $yz=x-1zz_{prev}z-x$
- $z^2+4x=4PN$
- $4PN+2x=PN_{next}$   
 $(4+28)2(4)=120$
- $\Delta 4PN = 4x = 4PN_{previous}$   
EX:  $24 - 16 = 8$   
 $56 - 32 = 24$   
 $120 - 64 = 56$   
 $248 - 128 = 120$



10 Parameters on the  
UPPER diagonal side of  
the Diamond become the  
expanded parameters on  
the LOWER diagonal side,  
that itself is the UPPER  
side of the "next"  
Diamond. ALL parameters  
are connected and  
related this way, giving  
rise to the straight-line  
connectors.



The first four Mersenne PRIME - Perfect Number Squares on the BIM

These (COLOR DIAGONALS) are seen directly on the BIM150x150 along paths PARALLEL to the PD, from bottom to the top of the DMPs. DMPs=Diamonds=Merseus Prime Square shape as seen on the BIM.

Each DMPs has this DIAGONAL SEQUENCE and there is some overlap on one DMPs to another.

The Number Pattern Sequence (NPS) is a natural consequence of multiplying the "x" Axis by the "z" Axis to give the PN (containers) as the "z" is simply the exponential power of 2, and the "x" is the Running Sum of "x". That gives the sequence number spacing as: 4-8-16-32-64... A Doubling.

There is another NPS if it plays out on the BIM. STEPS. As each of the numbers is located on a Diagonal path on the BIM, it does so in a replicate pattern of STEPS.

What is found and not expected was that these exact numbers would populate each DMPs with this NPS of STEPS both along the Parallel Diagonals, and an identical spacing pattern at 90°

Please see the BIM150:150\_PTOFBMPPN-DMPs page to follow along. The Colored Circles on the "z" header indicate the Column "z" values forming the DMPs edges on the BIM. The thin BLACK Circles denote the colored Diagonal NPS on this page as located within each DMPs on the BIM.

NOTE: The BIM Inner Grid (IG) contains NO EVENS NOT 4+. Except for the 1st Parallel Diagonal, the IG contains NO PRIMES.

The colored Diagonal NPS here is marked with the thin BLACK circles on the BIM as:  
The YELLOW & DARK GREEN inform the z=2 DMPs (RED 4x), ending at the x=15 on one, and x=32 on the other.  
The DK GREEN, BLUE, B-GREEN, RED-ORANGE inform the z=7 DMPs (BLUE 4x), ending at the x=64, 128, 256, 512.  
The BLUE, B-GREEN, RED-ORANGE, PURPLE, Light Green inform the z=13 DMPs (GREEN dot), ending at the x=64, 128, 256, 512, 1024.  
The B-GREEN, RED-ORANGE, PURPLE, Light Green, RED, ORANGE inform the z=31 DMPs (YELLOW dot), ending at the x=128, 256, 512, 1024, 2048.  
The RED-ORANGE, PURPLE, Light Green, RED, ORANGE inform the z=63 DMPs (DK BLUE dot), ending at the x=256, 512, 1024, 2048, 4096.

Remember that the back edge — the lower value — of the DMPs projects the "next" set of values, including the PN, on to its higher value front edge. Thus z=3 RED DMPs projects to a PN=28 on its forward front edge. This edge becomes the larger z=7 BLUE back edge. One edge informs the other. Each DMPs has a connected history to its past (smaller DMPs), current and future (larger DMPs).

Take for example the z=3 DMPs on the BIM.  
Back edge (BLUE) z^2 = 7^2 = 49. Followed by: 1STEP=28, 2STEPS=56, 4STEPS=112.  
Front edge (GREEN) z^2 = 15^2 = 225. Followed by: 1STEP=28, 2STEPS=120, 4STEPS=240, 8STEPS=480.