|          | Bifurcation Addition: Sum (∑) Total # of PRIMES from their Bifurcation Point on the PTOP (all P≥3)  # 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 |      |      |       |     |     |     |     |     |     |     |          |       |       |       |      |       |      |        |                |       |       |       |        |      |                |                |                |                |                |                |                |                   |                   |                   |                   |                |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                |     |                  |
|----------|---|------|------|-------|-----|-----|-----|-----|-----|-----|-----|----------|-------|-------|-------|------|-------|------|--------|----------------|-------|-------|-------|--------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|----------------|-------------------|----------------|----------------|-------------------|----------------------|-------------------|-------------------|-------------------|-------------------|----------------------|-------------------|---------------------|----------------|-----|------------------|
| #<br>PPs | 1   | 2    | 3    | 4     | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12       | 13    | 14    | 15    | 16   | 17    | 18   | 19     | 20 2           | 21 2  | 2 2   | 3 2   | 4 25   |      | 1              | 2              | 3              | 4              | 5              | 6              | 7              | 8                 | 9                 | 10                | 11                | 12             | 13                | 14             | 15             | 16                | 17                   | 18                | 19                | 20                | 21                | 22                   | 23                | 24                  | 25             |     | *                |
| # of     | 3   | 5    | 7    | 11    | 13  | 17  | 19  | 23  | 29  | 31  | 37  | 41       | 43    | 47    | 53    | 59   | 61    | 67   | 71     | 73 7           | 79 8  | 3 8   | 9 9   | 7 101  | Σ    | E <sub>s</sub> | E <sub>n</sub> 23 | E <sub>n</sub> 29 | E <sub>n</sub> 31 | E <sub>n</sub> 37 | E <sub>n</sub> | E <sub>n</sub> 43 | E <sub>n</sub> | E <sub>n</sub> | E <sub>n</sub> 59 | E <sub>n</sub><br>61 | E <sub>n</sub> 67 | E <sub>n</sub> 71 | E <sub>n</sub> 73 | E <sub>n</sub> 79 | E <sub>n</sub><br>83 | E <sub>n</sub> 89 | E <sub>n</sub> 97 1 | E <sub>n</sub> | Ee  | E <sub>e</sub> / |
| 1        | 3   | 3    |      |       |     |     |     |     |     |     |     |          |       |       |       |      |       | Т    | П      |                |       | т     | Т     |        | 3    | 6              |                |                |                |                |                |                |                   |                   |                   |                   |                |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                | 6   | 3                |
| 2        | 5   | 5 5  | 5    |       |     |     |     |     |     |     |     |          |       |       |       |      |       |      |        |                |       |       |       |        | 10   | 8              | 10             |                |                |                |                |                |                   |                   |                   |                   |                |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                | 10  | 5                |
| 3        | 7   | 7    | 7 7  | •     |     |     |     |     |     |     | L   | EF1      | ΓS    | IDE   | E: Ta | ake  | n fr  | om   | th     | e P            | TOF   | >     |       |        | 21   | 10             | 12             | 14             |                |                |                |                |                   |                   | 1                 | RIG               | ΉΤ             | SI                | DE             | : Ta           | ker               | n fr                 | rom               | า th              | e P               | TC                | )P                   |                   |                     |                | 14  | 7                |
| 4        | 11  | 11   | 1 11 | 11    |     |     |     |     |     |     |     | The      | YF    | 110   | )W    | Axis | = #   | of P | Ps     | form           | ina a | a     |       |        | 44   | 14             | 16             | 18             | 22             |                |                |                |                   |                   |                   |                   |                |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                | 22  | 11               |
| 5        | 13  | 13   | 3 13 | 13    | 13  |     |     |     |     |     |     | PPs      |       |       |       | IXIO | - "   | 011  |        | .01111         | 9 c   | •     |       |        | 65   | 16             | 18             | 20             | 24             | 26             |                |                |                   |                   |                   |                   |                |                   |                |                |                   |                      |                   |                   | ormin<br>uld fo   | _                 |                      |                   |                     |                | 26  | 13               |
| 6        | 17  | 17   | 7 17 | 17    | 17  | 17  |     |     |     |     | •   | On<br>PP |       | _     |       |      |       |      |        | ould<br>ag dia |       |       |       |        | 102  | 20             | 22             | 24             | 28             | 30             | 34             |                |                   |                   |                   | hc                | rizo           | ntal              | line           | s of           | PP                | set                  | enti              | ries.             |                   |                   |                      |                   |                     |                | 34  | 17               |
| 7        | 19  | 19   | 19   | 19    | 19  | 19  | 19  |     |     |     |     | dov      | vn th | ne ta | able  | fron | n Toj | o Le | eft to | Bot            | tom   | Rigl  |       |        | 133  | 22             | 24             | 26             | 30             | 32             | 36             | 38             |                   |                   |                   |                   |                |                   |                |                |                   |                      |                   |                   | om L              |                   |                      |                   | End.                |                | 38  | 19               |
| 8        | 23  | 23   | 3 23 | 23    | 23  | 23  | 23  | 23  |     |     | •   | Foll     | lows  | s the | PR    | IME  | SS    | equ  | enc    | e: 3,          | 5,7,1 | 1,13  | 3,    |        | 184  | 26             | 28             | 30             | 34             | 36             | 40             | 42             | 46                |                   |                   |                   |                |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   | IES.                |                | 46  | 23               |
| 9        | 29  | 29   | 29   | 29    | 29  | 29  | 29  | 29  | 29  |     |     |          |       |       |       |      |       |      |        |                |       |       |       |        | 261  | 32             | 34             | 36             | 40             | 42             | 46             | 48             | 52                | 58                | 1                 |                   |                |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   | ınd:                |                | 58  | 29               |
| 10       | 31  | 31   | 31   | 31    | 31  | 31  | 31  | 31  | 31  | 31  |     |          |       |       |       |      |       |      |        |                |       |       |       |        | 310  | 34             | 36             | 38             | 42             | 44             | 48             | 50             | 54                | 60                | 62                | G                 | olub           | acii              | COI            | ijeci          | ure               | pro                  | vec               | ı as              | uie               | # 62              | xcee                 | us (              | gaps                |                | 62  | 31               |
| 11       | 37  | 37   | 7 37 | 37    | 37  | 37  | 37  | 37  | 37  | 37  | 37  |          |       |       |       |      |       |      |        |                |       |       |       |        | 407  | 40             | 42             | 44             | 48             | 50             | 54             | 56             | 60                | 66                | 68                | 74                |                |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                | 74  | <b>37</b>        |
| 12       | 41  | 41   | l 41 | 41    | 41  | 41  | 41  | 41  | 41  | 41  | 41  | 41       |       |       |       |      |       |      |        |                |       |       |       |        | 492  | 44             | 46             | 48             | 52             | 54             | 58             | 60             | 64                | 70                | 72                | 78                | 82             |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                | 82  | 41               |
| 13       | 43  | 43   | 3 43 | 43    | 43  | 43  | 43  | 43  | 43  | 43  | 43  | 43       | 43    |       |       |      |       |      |        |                |       |       |       |        | 559  | 46             | 48             | 50             | 54             | 56             | 60             | 62             | 66                | 72                | 74                | 80                | 84             | 86                |                |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                | 86  | 43               |
| 14       | 47  | 47   | 7 47 | 47    | 47  | 47  | 47  | 47  | 47  | 47  | 47  | 47       | 47    | 47    |       |      |       |      |        |                |       |       |       |        | 658  | 50             | 52             | 54             | 58             | 60             | 64             | 66             | 70                | 76                | 78                | 84                | 88             | 90                | 94             |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                | 94  | 47               |
| 15       | 53  | 53   | 3 53 | 53    | 53  | 53  | 53  | 53  | 53  | 53  | 53  | 53       | 53    | 53    | 53    |      |       |      |        |                |       |       |       |        | 795  | 56             | 58             | 60             | 64             | 66             | 70             | 72             | 76                | 82                | 84                | 90                | 94             | 96                | 100 1          | 06             |                   |                      |                   |                   |                   |                   |                      |                   |                     |                | 106 | <b>53</b>        |
| 16       | 59  | 59   | 59   | 59    | 59  | 59  | 59  | 59  | 59  | 59  | 59  | 59       | 59    | 59    | 59    | 59   |       |      |        |                |       |       |       |        | 944  | 62             | 64             | 66             | 70             | 72             | 76             | 78             | 82                | 88                | 90                | 96                | 100            | 102               | 106            | 112 1          | 18                |                      |                   |                   |                   |                   |                      |                   |                     |                | 118 | 59               |
| 17       | 61  | 61   | 61   | 61    | 61  | 61  | 61  | 61  | 61  | 61  | 61  | 61       | 61    | 61    | 61    | 61   | 61    |      |        |                |       |       |       |        | 1037 | 64             | 66             | 68             | 72             | 74             | 78             | 80             | 84                | 90                | 92                | 98                | 102            | 104               | 108            | 114 1          | 20 1              | 122                  |                   |                   |                   |                   |                      |                   |                     |                | 122 | 61               |
| 18       | 67  | 67   | 67   | 67    | 67  | 67  | 67  | 67  | 67  | 67  | 67  | 67       | 67    | 67    | 67    | 67   | 67    | 67   |        |                |       |       |       |        | 1206 | 70             | 72             | 74             | 78             | 80             | 84             | 86             | 90                | 96                | 98                | 104               | 108            | 110               | 114 1          | 20 1           | 26 1              | 28                   | 134               |                   |                   |                   |                      |                   |                     |                | 134 | 67               |
| 19       | 71  | 71   | 71   | 71    | 71  | 71  | 71  | 71  | 71  | 71  | 71  | 71       | 71    | 71    | 71    | 71   | 71    | 71   | 71     |                |       |       |       |        | 1349 | 74             | 76             | 78             | 82             | 84             | 88             | 90             | 94                | 100               | 102               | 108               | 112            | 114               | 118 1          | 24 1           | 30 1              | 32                   | 138               | 142               |                   |                   |                      |                   |                     |                | 142 | <b>71</b>        |
| 20       | 73  | 73   | 3 73 | 73    | 73  | 73  | 73  | 73  | 73  | 73  | 73  | 73       | 73    | 73    | 73    | 73   | 73    | 73   | 73     | 73             |       |       |       |        | 1460 | 76             | 78             | 80             | 84             | 86             | 90             | 92             | 96                | 102               | 104               | 110               | 114            | 116               | 120 1          | 26 1           | 32 1              | 34                   | 140               | 144               | 146               |                   |                      |                   |                     |                | 146 | <b>73</b>        |
| 21       | 79  | 79   | 79   | 79    | 79  | 79  | 79  | 79  | 79  | 79  | 79  | 79       | 79    | 79    | 79    | 79   | 79    | 79   | 79     | 79             | 79    |       |       |        | 1659 | 82             | 84             | 86             | 90             | 92             | 96             | 98 1           | 102               | 108               | 110               | 116               | 120            | 122               | 126            | 32 1           | 38 1              | 40                   | 146               | 150               | 152               | 158               |                      |                   |                     |                | 158 | <b>79</b>        |
| 22       | 83  | 83   | 3 83 | 83    | 83  | 83  | 83  | 83  | 83  | 83  | 83  | 83       | 83    | 83    | 83    | 83   | 83    | 83   | 83     | 83             | 83 8  | 33    |       |        | 1826 | 86             | 88             | 90             | 94             | 96             | 100            | 02 1           | 106               | 112               | 114               | 120               | 124            | 126               | 130 1          | 36 1           | 42 1              | 144                  | 150               | 154               | 156               | 162               | 166                  |                   |                     |                | 166 | 83               |
| 23       | 89  | 89   | 89   | 89    | 89  | 89  | 89  | 89  | 89  | 89  | 89  | 89       | 89    | 89    | 89    | 89   | 89    | 89   | 89     | 89             | 89 8  | 39 8  | 39    |        | 2047 | 92             | 94             | 96             | 100            | 102            | 106            | 08             | 112               | 118               | 120               | 126               | 130            | 132               | 136            | 42 1           | 48 1              | 50                   | 156               | 160               | 162               | 168               | 172                  | 178               |                     |                | 178 | 89               |
| 24       | 97  | 97   | 97   | 97    | 97  | 97  | 97  | 97  | 97  | 97  | 97  | 97       | 97    | 97    | 97    | 97   | 97    | 97   | 97     | 97             | 97 9  | 97 9  | 7 9   | 97     | 2328 | 100            | 102            | 104            | 108            | 110            | 114            | 116 1          | 20                | 126               | 128               | 134               | 138            | 140               | 144 1          | 50 1           | 56 1              | 158                  | 164               | 168               | 170               | 176               | 180                  | 186               | 194                 |                | 194 | 97               |
| 25       | 10-   | 1 10 | 1 10 | 1 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101      | 101   | 101   | 101   | 101  | 101   | 101  | 101    | 101 1          | 01 1  | 01 10 | 01 10 | 01 101 | 2525 | 104            | 106            | 108            | 112            | 114            | 118            | 20 1           | 124               | 130               | 132               | 138               | 142            | 144               | 148 1          | 54 1           | 60 1              | 62                   | 168               | 172               | 174               | 180               | 184                  | 190               | 198                 | 202            | 202 | 01               |
|          |   |      | D    | ГΩР   | )   |     |     |     |     |     |     |          |       |       |       |      |       |      |        |                |       |       |       |        |      |                |                |                |                |                |                |                |                   |                   |                   |                   |                |                   |                |                |                   |                      |                   |                   |                   |                   |                      |                   |                     |                |     |                  |

## **PTOP**

Bifurcation

For every EVEN # that, when subtracting from it 3 ( $P_1$ ), gives a difference ( $\Delta$ ) of another P, a <u>3-PRIME</u> PPset — designated as "3,  $P_2$ " or "3 +  $P_2$ ", the sum ( $\Sigma$ )  $P_1$  +  $P_2$  = EVEN # — a PPset Trail is formed.

The PPset Trail follows a strict Number Pattern Sequence (NPS):

- Periodic Table of PRIMES (PTOP) has Column Headers of the PRIMES Sequence 3,5,7,11,13,17,19,23,....;
- The PPset Trail starts on the **PTOP** under the PRIME = 3 Column;
- It ONLY starts for EVENs formed from "3 + P<sub>2</sub>" sets;
- The P<sub>2</sub> itself sequentially increases DOWN the Column with the SAME **NPS** spacing as the PRIMES Sequence leaving a blank space for each PRIME Gap in the sequence;
- The PPset Trail ALWAYS follows the SAME IDENTICAL NPS as it forms a jagged diagonal from Top Left to Bottom Right;
- The PPset Trail **NPS** is the SAME PRIMES Sequence 3,5,7,11,13,17,19,23,..., but BEGINS the sequence at that PRIME at which that EVEN # 3 = that PRIME;
- The PPset Trail **NPS** going sequentially down the diagonal, will skip the next diagonal space leave blank for the PRIME Gaps;
- For those EVENs that are NOT "3 + P<sub>2</sub>" sets, the remaining Columns of the PRIMES Sequence 5,7,11,13,17,19,23,.... will fill in, picking up on a previous PPset Trail from a smaller EVEN above;
- For those EVENS that are NOT "3 + P2" sets, the PPset Trail NPS remains the SAME and IDENTICAL as the "3 + P2" sets, the ONLY difference is that it starts further down the Trail;
- The diagonal length of the PPset Trail increases by 1 PRIME # for each successive "3 + P₂" sets and that ∑# of PPsets is given in the 1st Header Column;
- The # of EVENS Covered (EC) by a given PPset Trail the Ending EVEN # (E<sub>e</sub>) Starting EVEN # (E<sub>s</sub>) = EC is important in establishing further **NPS** as seen in *Tables 38-40*.
- The E<sub>e</sub> = 2P<sub>2</sub> (see *Tables 38-40*); \*The EVEN Ending, as it is the result of the P1 = P2, is always a simple doubling of the P2 that started the Trail, e.i. EVEN = 10 ends with 5 + 5, thus the ending PPset is 10 and 10/2 = 5.
- Going horizontally across the **PTOP**, those PPsets from the various diagonally crossing PPset Trails will add up to the ∑ of PPsets that form that EVEN #, as shown in the last Column;
- While it is difficult to visualize here, or in the *Tables 38-40*, on the **BIM** one can readily see that EACH PPset is the base of a 90° R-angled isosceles triangle with its apex pointing to the EVEN #! (See rule170annotated image.)

The combination of two (2) PRIME Sequences,  $P_1$  and  $P_2$  — bifurcating at the  $P_2$  — not only gives one or more PPsets for every EVEN#, it also reveals a starling NEW **NPS** for the PRIMES + PRIMES generates 90° R-angled isosceles triangles!

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