## Chapter 6.3: "Progressive Patterns of the 6"

In "Chapter 3.3", we examined a few of the 'Progressive Patterns' which are contained within the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the iterations of the Function of " $1 / 3$ ". While in this sub-chapter, we will work with the various single-digit 'Progressive Patterns' which are contained within the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the iterations of the Function of " $1 / 6$ " (with these 'Repetition Patterns' having been the subject of "Chapter 6"). Specifically, we will examine the various sub-patterns which are contained within the 'Progressive Pattern Sets' which these individual 'Progressive Patterns' comprise, all of which will be explained as we progress.

Since the first two iterations of the Function of "1/6" both yield 'Infinitely Repeating Decimal Number' quotients which contain single-digit 'Repetition Patterns' which contain static no change 'Progressive Patterns', we will skip those iterations and instead start with the third iteration of the Function of "1/6" (which is equivalent to the Function of " $1 / 216$ "), which yields the first of these multiple-digit 'Repetition Patterns' (this being 629...), as is shown below. (Throughout this sub-chapter, the 'Infinitely Repeating Decimal Number' quotients will all be highlighted in the standard 'Repetition Pattern' color code, with the non-repeating parts of the 'Infinitely Repeating Decimal Numbers' highlighted in green, the first iterations of the 'Repetition Patterns' highlighted in red, and the second two non-highlighted iterations of the 'Repetition Patterns' separated by a " $(*)$ ", for clarity. Though the non-repeating parts of these 'Infinitely Repeating Decimal Number' quotients will be disregarded throughout this sub-chapter.)
$.004629629\left(^{*}\right) 629 \ldots$
To start, we will examine the 'One-Step Progressive Pattern' which is contained within the 'Repetition Pattern' which is seen above, as is shown below. (Throughout this sub-chapter, these 'Progressive Patterns' will all be highlighted in the standard 'Progressive Pattern' color code, which means that the 'Positive Shocks' will all be highlighted in green, the 'Negative Shocks' will all be highlighted in red, and non-Shocked Numbers will all be highlighted in blue.)

$$
629629 \ldots
$$

Above, we can see that this 'Repetition Pattern' contains a simple 'One-Step +6 Progressive Pattern', with this particular 'Progressive Pattern' involving an equal Quantity of Positive and Negative Shocks (in that it involves one of each Shock per iteration, with two iterations of the 'Progressive Pattern' shown above).

This same 'Repetition Pattern' also contains a 'Two-Step Progressive Pattern', as is shown below.

$$
629629629 \ldots
$$

Above, we can see that this 'Repetition Pattern' contains a 'Two-Step +3 Progressive Pattern' which involves equal Quantities of both Positive and Negative Shocks (which occur on the green 6 and the red 2, respectively). (There are other options available to us here in terms of possible values of change
of the Numbers, though this " +3 " value of change is the most ideal option in relation to this particular 'Progressive Pattern', in that while this same 'Progressive Pattern' could also be considered to be a 'TwoStep +2 Progressive Pattern' with occasional 'Positive Shocks Of 2', or a 'Two-Step +4 Progressive Pattern', with occasional 'Negative Shocks Of 2', neither of those examples is considered to be ideal, due mainly to the loss of 'Shock Parity'.)

The 'Two-Step +3 Progressive Pattern' which is seen above completes this relatively small 'Progressive Pattern Set', as this particular 'Repetition Pattern' does not contain any other unique 'Progressive Patterns'. This is due to the fact that three steps forward would invariably land on the same Number, which would yield a 'No Change Progressive Pattern', while any additional Quantity of steps forward would yield a Match of one of the previous 'Progressive Patterns' (in that four steps would yield a Match of the 'One-Step Progressive Pattern', five steps would yield a Match of the 'Two-Step Progressive Pattern', six steps would yield a Match of the 'Three-Step Progressive Pattern', etc.), as has been explained in previous chapters. (The 'No Change Progressive Patterns' are not members of the 'Progressive Pattern Sets', they instead act as a separation between the Cycles of the 'Progressive Pattern Sets', as will be explained a bit later in this sub-chapter.)

In these first few examples (all of which involve the 'Infinitely Repeating Decimal Number' quotient which is yielded by the third iteration of the Function of " $1 / 6$ "), the three ideal 'Progressive Patterns' all involve a 'Shock Pattern' which involves one 'Negative Shock' followed by one 'Positive Shock' ("-,+,.."). The various 'Progressive Pattern Sets' which will be examined in this sub-chapter will all involve 'Shock Patterns' which display Mirroring between one another, and these forms of Mirroring will be tracked as we progress.
$* * * * * * * * *$

Next, we will examine the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fourth iteration of the Function of "1/6", which is shown below. .00077160493827160493827(*)160493827...

Above, we can see that the nine-digit 'Repetition Pattern' which is contained within this 'Infinitely Repeating Decimal Number' quotient contains a complete instance of the 'Base Set', only with an extra 0 , and without the 5 , which does not appear anywhere within this 'Infinitely Repeating Decimal Number' quotient. (The 5 does appear as the condensed value of the non-repeating part of this 'Infinitely Repeating Decimal Number' quotient (in that " $0+0+0+7+7=14(5)$ "), though this is likely just a coincidence.)

Next, we will examine the various 'Progressive Patterns' which are contained within this nine-digit 'Repetition Pattern', starting with the 'One-Step Progressive Pattern', which is shown below.

$$
160493827(1) \ldots
$$

Above, we can see that this 'One-Step +4 Progressive Pattern' involves equal Quantities of Positive and Negative Shocks (in that there are four of each). (For the remainder of this sub-chapter, the 'Progressive Patterns' will be carried out until they display a repeating pattern, which in this case occurs once the
last Shock occurs on the second repetition of the 1 (which is shown above in parentheses). This first repetition point confirms that this 'Progressive Pattern' will repeat exactly, and to Infinity, as was explained in "Chapter 3.3".)

Next is the 'Two-Step Progressive Pattern' which is contained within this same 'Repetition Pattern', which is shown below.

$$
160493827160493827(1) \ldots
$$

Above, we can see that this 'Two-Step +8 Progressive Pattern' involves equal Quantities of Positive and Negative Shocks (in that there is one of each).

Next is the 'Three-Step Progressive Pattern' which is contained within this same 'Repetition Pattern', which is shown below.

$$
160493827(1) \ldots
$$

Above, we can see that this 'Three-Step +3 Progressive Pattern' involves equal Quantities of Positive and Negative Shocks (in that there is one of each).

Next is the 'Four-Step Progressive Pattern' which is contained within this same 'Repetition Pattern', which is shown below.

$$
160493827160493827160493827160493827(1) . .
$$

Above, we can see that this 'Four-Step +4 Progressive Pattern' involves equal Quantities of Positive and Negative Shocks (in that there are two of each).

Next is the 'Five-Step Progressive Pattern' which is contained within this same 'Repetition Pattern', which is shown below.

$$
160493827160493827160493827160493827160493827(1) \ldots
$$

Above, we can see that this 'Five-Step +2 Progressive Pattern' involves equal Quantities of Positive and Negative Shocks (in that there are two of each).

Next is the 'Six-Step Progressive Pattern' which is contained within this same 'Repetition Pattern', which is shown below.

$$
160493827160493827(1) \ldots
$$

Above, we can see that this 'Six-Step +6 Progressive Pattern' involves equal Quantities of Positive and Negative Shocks (in that there is one of each).

Next is the 'Seven-Step Progressive Pattern' which is contained within this same 'Repetition Pattern', which is shown below.

$$
160493827160493827160493827160493827160493827160493827160493827(1) \ldots
$$

Above, we can see that this 'Seven-Step +1 Progressive Pattern' involves equal Quantities of Positive and Negative Shocks (in that there is one of each).

Next is the 'Eight-Step Progressive Pattern' which is contained within this same 'Repetition Pattern', which is shown below.

Above, we can see that this 'Eight-Step +5 Progressive Pattern' involves equal Quantities of Positive and Negative Shocks (in that there are four of each).

Next is the 'Nine-Step Progressive Pattern', which is the 'No Change Progressive Pattern' which separates the Cycles of the 'Progressive Pattern Sets' (as will be explained in a moment). While any additional Quantity of steps forward would yield a 'Progressive Pattern' which is a Match of one of the previous 'Progressive Patterns', in that ten steps would yield a Match of the 'One-Step Progressive Pattern', eleven steps would yield a Match of the 'Two-Step Progressive Pattern', twelve steps would yield a Match of the 'Three-Step Progressive Pattern', etc. , as has been explained previously.

Next, we will examine the various sub-patterns which are displayed by the 'Progressive Pattern Set' which is contained within the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fourth iteration of the Function of " $1 / 6$ ", all of which are highlighted in the chart which is shown below (with an arbitrary color code which will be explained below the chart). (The fact that all of the following characteristics and behaviors are displayed by an eight-member 'Progressive Pattern Set' is an indication that the 'No Change Progressive Pattern' acts as the separation between the first two Cycles of the 'Progressive Pattern Set'. This will also be the case in relation to all of the rest of these examples, as will be seen in the next section.)

| steps | values of change | total Shocks | equal Shocks |
| :---: | :---: | :---: | :---: |
| 1 | 4 | 8 | $Y(4 \mathrm{P} 4 \mathrm{~N})$ |
| 2 | 8 | 2 | $\mathrm{Y}(1 \mathrm{P} 1 \mathrm{~N})$ |
| 3 | 3 | 2 | $\mathrm{Y}(1 \mathrm{P} 1 \mathrm{~N})$ |
| 4 | 7 | 4 | $\mathrm{Y}(2 \mathrm{P} 2 \mathrm{~N})$ |
| 5 | 2 | 4 | $\mathrm{Y}(2 \mathrm{P} 2 \mathrm{~N})$ |
| 6 | 6 | 2 | $\mathrm{Y}(1 \mathrm{P} 1 \mathrm{~N})$ |
| 7 | 1 | 2 | $\mathrm{Y}(1 \mathrm{P} 1 \mathrm{~N})$ |
| 8 | 5 | 8 | $\mathrm{Y}(4 \mathrm{P} 4 \mathrm{~N})$ |

Above, we can see that the steps column contains a simple ordered run of the 'Base Numbers' of 1-8, which means that these Numbers display a concentric form of 'Sibling Mirroring', as can be seen in the green '1/8 Sibling/Self-Cousins', the purple '2/7 Siblings', the blue '3/6 Sibling/Cousins', etc. . While we can see that the values of change column involves a run of Numbers which display an alternate form of concentric 'Sibling Mirroring', as can be seen in the red ' $4 / 5$ Siblings', the green ' $1 / 8$ Sibling/SelfCousins', the blue '3/6 Sibling/Cousins', etc. . This column of Numbers also displays a form of orientational Mirroring, in that in relation to the outermost concentric pair of Siblings, the Lesser of the Siblings is oriented on the top, while in relation to next concentrically inward pair of Siblings, the Greater of the Siblings is oriented on the top. Then in relation to the next concentrically inward pair of Siblings, the Lesser of the Siblings is oriented on the top, while in relation to the most concentrically inward pair of Siblings, the Greater of the Siblings is oriented on the top. Next, we can see that the total Shocks column involves a run of Numbers which displays a concentric form of Matching, with these Matching pairs of Numbers all highlighted in various arbitrary colors. Finally, we can see that the equal

Shocks column displays two separate forms of Matching. First, there is the sub-pattern which involves the 'Shock Parity' which is maintained throughout these individual 'Progressive Patterns', which is indicated by the colored Numbers (with the concept of 'Shock Parity' involving a form of Matching). While this column also displays the sub-pattern which involves the fact that the Quantities and the Charges of the Shocks (individually) display a concentric form of Matching, which can be seen in the highlighting of the "Y's". (This form of Matching is simply an extension of that which is displayed by the third column.)

Also, the steps and changes columns both Add to a non-condensed sum of 36 (individually), with these condensed sums each condensing to the 9 . While the total Shocks column Adds to a total Quantity of thirty-two (which condenses to the 5), and the equal Shocks column involves individual Quantities of sixteen 'Positive Shocks' and sixteen 'Negative Shocks' (with these two Quantities of sixteen each condensing to the 7). These non-condensed sums of 32 and 16 then Add to a non-condensed sum of 48, which condenses to the 3 , with this condensed sum maintaining the '3,6,9 Family Group', as do the other two condensed sums, as is shown below (with Family Group highlighting).

| steps - | $36(9)$ |  |
| :--- | :--- | :--- |
| changes - | $36(9)$ |  |
| total Shocks - | $32(5)$ | $\backslash$ |
|  | $48(3)$ |  |
| equal Shocks - | $16(7)$ | $/$ |

Above, we can see that the two condensed 9's maintain the '3,6,9 Family Group', as does the combined and condensed total of the other two non-condensed values, in that " $32+16=48(3)$ ". While the condensed sum of all of these non-condensed Quantities also maintains the '3,6,9 Family Group', in that " $36+36+32+16=120(3)$ ".
(This 'Repetition Pattern' also contains an alternate 'Progressive Pattern Set', one which involves a switching of two of the individual 'Progressive Patterns'. This alternate 'Progressive Pattern Set' is included in the endnotes of this sub-chapter.)

Also, there are additional forms of Mirroring and Matching which are displayed between the solutions to the various Functions which involve the 'Cross Numbers' which are contained within the chart of this 'Progressive Pattern Set', all of which are shown and explained below (with the term 'Cross Numbers' referring to any Numbers which are diametrically opposed to one another, as has been explained previously). (The first few of these examples will involve untrue 'Cross Numbers', which are simply horizontally aligned Numbers.)

First, there is the 'Sibling Mirroring' which is displayed between the sums of the concentric pairs of untrue 'Cross Numbers' which are contained within the first two vertical columns of the previous chart, which is shown below (with arbitrary highlighting). (The first two vertical columns of colored Numbers which are seen below display the previously established forms of concentric 'Sibling Mirroring', while the new form of 'Sibling Mirroring' is displayed by the rightmost vertical column of colored Numbers.)

The first (1) sub-pattern involves a raise of 4 , and $1+4=5(5)$
The eighth (8) sub-pattern involves a raise of 5 , and $8+5=13(4)$
The second (2) sub-pattern involves a raise of 8 , and $2+8=10(1)$
The seventh (7) sub-pattern involves a raise of 1 , and $7+1=8(8)$
The third (3) sub-pattern involves a raise of 3 , and $3+3=6(6)$
The sixth (6) sub-pattern involves a raise of 6 , and $6+6=12(3)$
The fourth (4) sub-pattern involves a raise of 7 , and $4+7=11(2)$
The fifth (5) sub-pattern involves a raise of 2 , and $5+2=7(7)$
Above, we can see the new form of 'Sibling Mirroring' which is displayed by the rightmost vertical column of colored Numbers, in that all four of these pairs of condensed sums involve Siblings. Also, the four Sibling pairs which are contained within the rightmost column of colored Numbers display a Mirrored version of the overall form of orientational Mirroring which was seen a moment ago in relation to the values of change column of the previous chart. (Previously, the concentric 'Sibling Mirroring' involved the Number pairs of $4 / 5,8 / 1,3 / 6$, and $7 / 2$, where as in this case, the 'Sibling Mirroring' involves the orientationally Mirrored Number pairs of $5 / 4,1 / 8,6 / 3$, and $2 / 7$.) While all four of the individual pairs of non-condensed sums which are seen above Add to a non-condensed sum of 18 , in that " $5+13=18$ ", " $10+8=18 ", " 6+12=18$ ", and " $11+7=18$ ".

While there is Matching displayed (individually) between the products of these same concentric pairs of untrue 'Cross Numbers', as is shown below. (To clarify, the individual 'Multiplication Functions' which are seen below involve the same Number pairings as the individual 'Addition Functions' which are seen above.)

$$
\begin{array}{llll}
1 \mathrm{X} 4=4(4) & 2 \mathrm{X} 8=16(7) & 3 \mathrm{X} 3=9(9) & 4 \mathrm{X} 7=28(1) \\
8 \mathrm{X} 5=40(4) & 7 \mathrm{X} 1=7(7) & 6 \mathrm{X} 6=36(9) & 5 \mathrm{X} 2=10(1)
\end{array}
$$

Above, we can see that Multiplying these same pairs of untrue 'Cross Numbers' yields four pairs of Matching condensed products, all of which are highlighted in a Family Group color code. Also, these vertical pairs of non-condensed products display a form of orientational Mirroring between one another, in that the orientation of the Lesser of the non-condensed products is Mirrored between the pairs. In relation to the first column, the non-condensed product of 4 is oriented on the top, while in relation to the second column, the non-condensed product of 7 is oriented on the bottom. Then, in relation to the third column, the non-condensed product of 9 is oriented on the top, while in relation to the fourth column, the non-condensed product of 10 is oriented on the bottom. Also, these Matching pairs of condensed products involve two instances of a complete '1,4,7 Family Group' (both of which are highlighted in green), along with a pair of 'Self-Sibling/Cousin 9's' (both of which are highlighted in blue). (In this case, the condensed solutions which involve '3,6,9 Family Group' members are both contained within the third vertical column. This characteristic will be displayed by the majority of these examples, which will be seen as we progress.)

Also, there is 'Sibling/Cousin Mirroring' displayed (individually) between the differences of these same concentric pairs of untrue 'Cross Numbers', as is shown below.

| $1-4=-3(6)$ | $2-8=-6(3)$ | $3-3=0(9)$ | $4-7=-3(6)$ |
| :--- | :--- | :--- | :--- |
| $8-5=3(3)$ | $7-1=6(6)$ | $6-6=0(9)$ | $5-2=3(3)$ |

Above, we can see that Subtracting these same pairs of untrue 'Cross Numbers' yields four pairs of 'Sibling/Cousin Mirrored' condensed products, with the Functions which are contained within the first, second, and fourth columns all yielding condensed differences which involve the '3/6 Sibling/Cousins' (which are highlighted in green and red, respectively), while the Functions which are contained within the third column yield condensed differences which involve a pair of 'Self-Sibling/Cousin 9's' (both of which are highlighted in blue). (In all three of these columns, the topmost of the condensed differences is yielded via 'Positive/Negative Sibling Mirroring'.) Also, the non-condensed and condensed differences which are contained within the third vertical column all involve '3,6,9 Family Group' members, as do the subtrahends and minuends which yield them, with all of these values maintaining the unique third column behavior which was mentioned in relation to the previous example. (Though in this particular example, all of the non-condensed and condensed differences involve '3,6,9 Family Group' members.)

While there is an overall form of 'Family Group Mirroring' displayed between the quotients of these same concentric pairs of untrue 'Cross Numbers', as is shown (incompletely) below (with Family Group highlighting). (This example is incomplete due to the fact that two of these individual Functions are $1 / 7$ Division Functions' (both of which are indicated with "*'s"), both of which yield 'Infinitely Repeating Decimal Number' quotients which would be of no immediate use to us here.)

| $1 / 4=.25(7)$ | $2 / 7=*$ | $3 / 3=1(1)$ | $4 / 7=*$ |
| :--- | :--- | :--- | :--- |
| $8 / 5=1.6(7)$ | $7 / 1=7(7)$ | $6 / 6=1(1)$ | $5 / 2=.4(4)$ |

Above, we can see that Dividing these same concentric pairs of untrue 'Cross Numbers' yields condensed quotients which display an overall form of 'Family Group Mirroring', in that all of these (Valid) condensed quotients involve '1,4,7 Family Group' members (all of which are highlighted in green). (This means that this is the first of these overall examples which has not displayed the established '3,6,9 Family Group' member third column behavior.) Also, there is Matching displayed (individually) between the condensed quotients which are contained within the two columns which are complete (these being the first and third columns, which involve condensed quotients of 7's and 1's, respectively), and 'Cousin Mirroring' displayed between the condensed quotients which are contained within the two incomplete columns, in that the two 'Valid Functions' which are contained within these columns yield condensed quotients which involve the members of the ' $4 / 7$ Cousins'. (We would assume that the second and fourth columns would also display Matching between their condensed quotients (individually), though at this point, this assumption cannot be confirmed.)

Next, we will examine the various forms of Mirroring which are displayed between the solutions which are yielded by the various Functions which involve the true 'Cross Numbers' which are contained within the previous chart, all of which is shown and explained below. (The chart which is seen below is the same chart which was seen earlier, only with the inclusion of arbitrarily colored lines which indicate the various instances of 'Cross Numbers', as is explained below the chart.)


| total Shocks | equal Shocks |
| :---: | :---: |
| 8 | $Y(4 \mathrm{P} 4 \mathrm{~N})$ |
| 2 | $Y(1 \mathrm{P} 1 \mathrm{~N})$ |
| 2 | $\mathrm{Y}(1 \mathrm{P} 1 \mathrm{~N})$ |
| 4 | $\mathrm{Y}(2 \mathrm{P} 2 \mathrm{~N})$ |
| 4 | $\mathrm{Y}(2 \mathrm{P} 2 \mathrm{~N})$ |
| 2 | $\mathrm{Y}(1 \mathrm{P} 1 \mathrm{~N})$ |
| 2 | $\mathrm{Y}(1 \mathrm{P} 1 \mathrm{~N})$ |
| 8 | $\mathrm{Y}(4 \mathrm{P} 4 \mathrm{~N})$ |

Above, we see a series of colored lines which indicate the true 'Cross Numbers' which are contained within the first two vertical columns of the chart. The top-leftmost Number which is contained within the first two columns of the chart is the green 1 (with this being the Quantity of steps which are involved in that 'Progressive Pattern'), while the bottom-rightmost Number which is contained within the first two columns of the chart is the red 5 (with this being the value of change of that 'Progressive Pattern'). These two true 'Cross Numbers' are orientationally Polar to one another, in that they involve diametrically opposed orientations within these two columns, as is indicated by the green line which connects the two Numbers. While the opposing green line indicates the other pair of concentrically outermost true 'Cross Numbers', these being the red 4 which is oriented on the top of the values of change column and the green 8 which is oriented on the bottom of the steps column. As can be seen above, drawing a line between each of the pairs of diametrically opposed Numbers forms a series of concentric "X's", which qualifies these pairs of Numbers as true 'Cross Numbers'.

First, we will perform the 'Addition Function' on these eight pairs of Cross Numbers', as is shown below. (To clarify, the Functions which are contained within the first column involve the Numbers which are connected above by the green lines, those which are contained within the second column involve the Numbers which are connected above by the red lines, etc. .)

| $1+5=6(6)$ | $2+1=3(3)$ | $3+6=9(9)$ | $4+2=6(6)$ |
| :--- | :--- | :--- | :--- |
| $8+4=12(3)$ | $7+8=15(6)$ | $6+3=9(9)$ | $5+7=12(3)$ |

Above, we can see that Adding these pairs of untrue 'Cross Numbers' yields four pairs of condensed products which display 'Sibling/Cousin Mirroring' (individually), with the Functions which are contained within the first, second, and fourth columns all yielding condensed differences which involve the '3/6 Sibling/Cousins' (which are highlighted in green and red, respectively), and the Functions which are contained within the third column yielding condensed differences which involve a pair of 'Self-Sibling/Cousin 9's' (both of which are highlighted in blue). Also, the non-condensed and condensed differences which are contained within the third column all involve '3,6,9 Family Group' members, as do the subtrahends and minuends which yield them, with all of these values maintaining the unique third column behavior which has been seen in relation to a few of the previous examples (though in this particular example, all of the non-condensed and condensed differences involve '3,6,9 Family Group' members). (This overall behavior displays Matching in relation to that which is displayed by the untrue 'Cross Numbers' when they are involved in the 'Subtraction Function', though in this case, there are no instances of 'Positive/Negative Sibling Mirroring'.)

Next, we will perform the 'Subtraction Function' on these same pairs of Numbers, as is shown below.

| $1-5=-4(5)$ | $2-1=1(1)$ | $3-6=-3(6)$ | $4-2=2(2)$ |
| :--- | :--- | :--- | :--- |
| $8-4=4(4)$ | $7-8=-1(8)$ | $6-3=3(3)$ | $5-7=-2(7)$ |

Above, we can see that Subtracting these same pairs of true 'Cross Numbers' yields four pairs of condensed products which display 'Sibling/Cousin Mirroring' (individually), all of which are yielded from pairs of Numerically Matching non-condensed differences. While all four of these columns involve one instance of 'Positive/Negative Sibling Mirroring', with the 'Negative Base Charged' noncondensed differences all condensing to the Greater of the Siblings (all of which are highlighted in red). Also, these condensed differences display a form of orientational Mirroring between one another, in that the Greater of the Siblings are oriented on the top of the first column, the bottom of the second column, the top of the third column, and the bottom of the fourth column. Also, we can see that all four of the Sibling pairs are represented within these condensed differences (though the 'Self-Sibling/Cousin 9 ' is not). (While in this case, the non-condensed and condensed solutions which involve '3,6,9 Family Group' members are again oriented in the third vertical column.)

Next, we will perform the 'Multiplication Function' on these same pairs of Numbers, as is shown below.

| $1 \mathrm{X} 5=5(5)$ | $2 \mathrm{X} 1=2(2)$ | $3 \mathrm{X} 6=18(9)$ | $4 \mathrm{X} 2=8(8)$ |
| :--- | :--- | :--- | :--- |
| $8 \mathrm{X} 4=32(5)$ | $7 \mathrm{X} 8=56(2)$ | $6 \mathrm{X} 3=18(9)$ | $5 \mathrm{X} 7=35(8)$ |

Above, we can see that Multiplying these same pairs of true 'Cross Numbers' yields behavior which is similar to that which is displayed by the pairs of untrue 'Cross Numbers' when they are Multiplied by one another, in that these eight Functions yield four pairs of Matching condensed products, all of which are highlighted in a Family Group color code. Though these two overall examples display a form of 'Family Group Mirroring' between one another, in that this example involves two instances of a complete '2,5,8 Family Group' along with a pair of 'Self-Sibling/Cousin 9's', where as the previous example (that which involved the untrue 'Cross Numbers') involved two instances of a complete '1,4,7 Family Group' along with a pair of 'Self-Sibling/Cousin 9's'. (While in this case, the solutions which involve condensed '3,6,9 Family Group' members are again oriented in the third vertical column.)

Next, we will perform the 'Division Function' on these same pairs of Numbers, as is shown (incompletely) below. (This example is incomplete due to the 'Invalid Function' of "5/7", which yields an 'Infinitely Repeating Decimal Number' quotient which would be of no immediate use to us here.)

| $1 / 5=.2(2)$ | $2 / 1=2 r(2)$ | $3 / 6=.5(5)$ | $4 / 2=2(2)$ |
| :--- | :--- | :--- | :--- |
| $8 / 4=2(2)$ | $7 / 8=.875(2)$ | $6 / 3=2(2)$ | $5 / 7=*$ |

Above, we can see that Dividing these same pairs of true 'Cross Numbers' yields condensed quotients which display Matching in (and between) the first two columns (all of which is highlighted in green), and 'Cousin Mirroring' in the third column (which is highlighted in red). While the fourth column is incomplete (due to the 'Invalid Function' of "5/7"), though the lone Valid Function which is contained within this column yields a quotient which condenses to the 2 (which is highlighted in blue), which indicates that this column would likely either display Matching in relation to those which involve the Matching 2's, or (less likely) Mirroring in relation to that which involves the '2/5 Cousins' (with a Mirrored arrangement of the ' $2 / 5$ Cousins'). Though at this point, we cannot confirm either of these possibilities, due to the 'Invalid Function' of "5/7". (While in this case, none of the condensed solutions
involve '3,6,9 Family Group' members, which means that the established third column behavior is not displayed by this example.)

Also, we can see that an additional form of 'Sibling Mirroring' is displayed by the Numbers which are contained within the chart which is shown above (on a previous page), with this form of 'Sibling Mirroring' involving the relationship between the orientation of a Number within the steps column and the orientation of that same Number within the changes column. First, in relation to the ' $1 / 8$ Sibling/Self-Cousins', the green 1 which is contained within the steps column is oriented two steps below the green 1 which is contained within the changes column (carrying over from the bottom to the top), while inversely, the green 8 which is contained within the steps column is oriented two steps above the green 8 which is contained within the changes column (carrying over from the top to the bottom). Next, in relation to the ' $2 / 7$ Siblings', the purple 2 which is contained within the steps column is oriented three steps above the purple 2 which is contained within the changes column, while inversely, the purple 7 which is contained within the steps column is oriented three steps below the purple 7 which is contained within the changes column. Next, in relation to the '3/6 Sibling/Cousins' (both of which are highlighted in blue), the 3 and the 6 both display orientational Matching (individually), in that neither of these Numbers involve any movement between the steps and changes columns. Finally, in relation to the ' $4 / 5$ Siblings', the red 4 which is contained within the steps column is oriented three steps below the red 4 which is contained within the changes column, while inversely, the red 5 which is contained within the steps column is oriented three steps above the red 5 which is contained within the changes column. While the various Sibling pairs which are contained within the steps and changes columns also display a form of orientational Mirroring between one another (individually). First, in relation to the '1/8 Sibling/Self-Cousins', the green 8 which is contained within the changes column is oriented one step below the green 1 which is contained within the steps column, while the green 1 which is contained within the changes column is oriented one step above the green 8 which is contained within the steps column. Next, in relation to the ' $2 / 7$ Siblings', the purple 7 which is contained within the changes column is oriented two steps below the purple 2 which is contained within the steps column, while the purple 2 which is contained within the changes column is oriented two steps above the purple 7 which is contained within the steps column. Next, in relation to the $3 / 6$ Sibling/Cousins', the blue 3 which is contained within the changes column is oriented three steps above the blue 6 which is contained within the steps column, while the blue 6 which is contained within the changes column is oriented three steps below the blue 3 which is contained within the steps column. Finally, in relation to the ' $4 / 5$ Siblings', the red 4 which is contained within the changes column is oriented a 'Self-Mirrored' four steps away from the red 5 which is contained within the steps column, while the red 5 which is contained within the changes column is oriented a 'Self-Mirrored' four steps away from the red 4 which is contained within the steps column. (The orientations of the ' $4 / 5$ Siblings' each display a form of 'Self-Mirroring', which is due to the fact that the Mirrored orientations of four steps up and four steps down involve a Matching orientation.)

That completes our examination of the various forms of Mirroring and Matching which are displayed between the true 'Cross Numbers' which are contained within the first two columns of the chart of the 'Progressive Pattern Set' of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fourth iteration of the Function of " $1 / 6$ ". Next, we will examine the similar forms of Mirroring and Matching which are displayed between the various (untrue and true) 'Cross Numbers' which are contained within the second two columns of the chart (these being the changes and total Shocks columns), all of which is shown and explained below.

We will start with the untrue 'Cross Number' pairs which involve the concentric Siblings which are contained within the changes column and the horizontally aligned Numbers which are contained within the total Shocks column. These pairs of Numbers yield solutions which display no Mirroring or Matching between themselves or one another when they are involved in the individual '(+/-) Sibling Functions', though their condensed sums and differences do display a form of (Numerical) 'Sibling Mirroring' between one another, as is shown and explained below.

| $4+8=12(3)$ | $8+2=10(1)$ | $3+2=5(5)$ | $7+4=11(2)$ |
| :--- | :--- | :--- | :--- |
| $5+8=13(4)$ | $1+2=3(3)$ | $6+2=8(8)$ | $2+4=6(6)$ |
| $4-8=-4(5)$ | $8-2=6(6)$ | $3-2=1(1)$ | $7-4=3(3)$ |
| $5-8=-3(6)$ | $1-2=-1(8)$ | $6-2=4(4)$ | $2-4=-2(7)$ |

Above, we can see that all four of these vertical columns of condensed solutions involve two pairs of concentric Siblings, all of which are highlighted arbitrarily. (While in this case, the previously established third column behavior is not displayed.)

Next, we will perform the 'Multiplication Function' on these same pairs of untrue 'Cross Numbers', as is shown below.

| $4 \mathrm{X} 8=32(5)$ | $8 \mathrm{X} 2=16(7)$ | $3 \mathrm{X} 2=6(6)$ | $7 \mathrm{X} 4=28(1)$ |
| :--- | :--- | :--- | :--- |
| $5 \mathrm{X} 8=40(4)$ | $1 \mathrm{X} 2=2(2)$ | $6 \mathrm{X} 2=12(3)$ | $2 \mathrm{X} 4=8(8)$ |

Above, we can see that the Multiplying these same pairs of untrue 'Cross Numbers' yields four pairs of condensed products which display 'Sibling Mirroring' between one another (individually). Also, we can see that all four of the Sibling pairs are represented within these condensed products (though the 'SelfSibling/Cousin 9 ' is not). While in this case, the solutions which involve condensed '3,6,9 Family Group' members are again oriented in the third vertical column.

Next, we will perform the 'Division Function' on these same pairs of untrue 'Cross Numbers', as is shown below.

$$
\begin{array}{llll}
4 / 8=.5(5) & 8 / 2=4(4) & 3 / 2=1.5(6) & 7 / 4=1.75(4) \\
5 / 8=.625(4) & 1 / 2=.5(5) & 6 / 2=3(3) & 2 / 4=.5(5)
\end{array}
$$

Above, we can see that Dividing these same pairs of untrue 'Cross Numbers' yields four pairs of condensed quotients which display 'Sibling Mirroring' between one another (individually). While these pairs of condensed quotients also display a form of orientational Mirroring between one another, in that the Greater of the Siblings are oriented on the top of the first column, the bottom of the second column, the top of the third column, and the bottom of the fourth column. While in this case, the solutions which involve condensed '3,6,9 Family Group' members are again oriented in the third vertical column.

Moving on, in looking at the true 'Cross Numbers' which are contained within these same (changes and total Shocks) columns, we can see that these Number pairs are identical to the untrue 'Cross Number' pairs which we just examined, with this form of Matching being due to the previously established concentric Matching which is displayed within the total Shocks column. This means that we can save ourselves a little bit of time here, and just move on to other examples of 'Cross Numbers'.

Next, we will examine the various forms of Mirroring which are displayed between the true 'Cross Numbers' which are contained within the steps and total Shocks columns, all of which are shown and explained below (first in relation to the 'Multiplication Function'). (These pairs of true 'Cross Numbers' are identical to the pairs of untrue 'Cross Numbers' which are contained within these columns (again, due to the previously established concentric Matching which is displayed within the total Shocks column), and this form of Matching will negate the need for us to examine those redundant pairs of Numbers.)

$$
\begin{array}{llll}
1 \mathrm{X} 8=8(8) & 2 X 2=4(4) & 3 X 4=12(3) & 4 X 4=16(7) \\
8 X 8=64(1) & 7 X 2=14(5) & 6 X 4=24(6) & 5 X 4=20(2)
\end{array}
$$

Above, we can see that Multiplying these pairs of true 'Cross Numbers' yields four pairs of condensed products which display 'Sibling Mirroring' between one another (individually). Also, we can see that all four of the Sibling pairs are represented within these condensed products (though the 'SelfSibling/Cousin 9 ' is not). While these pairs of condensed products also display a form of orientational Mirroring between one another, in that the far-left and far-right Sibling pairs each have the Lesser of the Siblings oriented on the bottom, while the two center pairs each have the Lesser of the Siblings oriented on the top. Also, in this case, the solutions which involve condensed '3,6,9 Family Group' members are again oriented in the third vertical column.

Next, we will perform the 'Division Function' on these same pairs of true 'Cross Numbers', as is shown below.

| $1 / 8=.125(8)$ | $2 / 2=1(1)$ | $3 / 4=.75(3)$ | $4 / 4=1 \quad(1)$ |
| :--- | :--- | :--- | :--- |
| $8 / 8=1$ | $(1)$ | $7 / 2=3.5(8)$ | $6 / 4=1.5(6)$ |

Above, we can see that Dividing these same pairs of true 'Cross Numbers' yields four pairs of condensed quotients which display 'Sibling Mirroring' between one another (individually), with three of these instances of 'Sibling Mirroring' involving the '1/8 Sibling/Self-Cousins'. While in this case, the solutions which involve condensed '3,6,9 Family Group' members are again oriented in the third vertical column.

Next, we will perform the 'Addition Function on these same pairs of true 'Cross Numbers', as is shown below.

| $1+8=9(9)$ | $2+2=4(4)$ | $3+4=7(7)$ | $4+4=8(8)$ |
| :--- | :--- | :--- | :--- |
| $8+8=16(7)$ | $7+2=9(9)$ | $6+4=10(1)$ | $5+4=9(9)$ |

Above, we see a selection of condensed sums which display a vague form of 'Weak Mirroring between one another', with this particular form of 'Weak Mirroring' involving Cousins, along with condensed sums of 9. First, there are the three instances of the 'Self-Sibling/Cousin 9' (all of which are highlighted in blue), along with one non-highlighted instance of the '1/8 Sibling/Self-Cousins' (with these '1/8 Sibling/Self-Cousins' Adding to a sum of 9). Then, there is one instance of the ' $4 / 7$ Cousins', along with an extra 7 (all of which are highlighted in green), with these three '1,4,7 Family Group' members Adding to a non-condensed sum of 18 (in that " $4+7+7=18$ "), with this non-condensed sum condensing to the 9 .

Next, we will perform the 'Subtraction Function' on these same pairs of true 'Cross Numbers', as is shown below.

| $1-8=-7(2)$ | $2-2=0(9)$ | $3-4=-1(8)$ | $4-4=0(9)$ |
| :--- | :--- | :--- | :--- |
| $8-8=0(9)$ | $7-2=5(5)$ | $6-4=2(2)$ | $5-4=1(1)$ |

Above, we can see that Subtracting these same pairs of true 'Cross Numbers' yields condensed differences which display a form of 'Weak Mirroring' which is similar to that which was seen in relation to the previous example. First, there are the three instances of the 'Self-Sibling/Cousin 9' (all of which are highlighted in blue), with these 'Self-Sibling/Cousin 9's' displaying orientational Mirroring in relation to those which were seen in the previous example, as is also the case in relation to the nonhighlighted instance of the '1/8 Sibling/Self-Cousins' which is seen above. (Though in this case, two of the condensed 9's have been condensed from non-condensed differences of 0 .) Then, there is one instance of the ' $2 / 5$ Cousins', along with an extra 2 (all of which are highlighted in red), with these three '2,5,8 Family Group' members Adding to a non-condensed sum of 9 (in that " $2+5+2=9$ "). These three '2,5,8 Family Group' members display orientational Mirroring in relation to the three '1,4,7 Family Group' members which were seen in the previous example (with the '2,5,8 and 1,4,7 Family Group members displaying a form of 'Family Group Mirroring' between one another). While even the instances of the extra Cousins display a form of Mirroring between one another, in that this example involves an extra instance of the Lesser of the ' $2 / 5$ Cousins', while the previous example involved an extra instance of the Greater of the '4/7 Cousins' (with these two instances of extra Cousins involving the ' $2 / 7$ Siblings'). Also, the non-condensed sums which are yielded by the Addition of the condensed sums which are involved in these two overall examples are 54 and 45, respectively. (To clarify, these two values are the non-condensed sums which are yielded via the Addition of the eight condensed values which are involved in each of the previous two examples.) These non-condensed sums of 54 and 45 involve Mirrored multiple-digit representations of the ' $4 / 5$ Siblings', with these two non-condensed values Adding together to yield a non-condensed sum of 99 , which condenses to the 9 (in that " $54+45=99(9)$ ").

Moving on (though still working with the chart which was seen on a previous page), if we Add together the Quantities of Shocks which are involved in each of these 'Progressive Patterns' in order to yield the total Quantity of Shocks which are involved in this 'Progressive Pattern Set', and then Divide this Quantity by eight in order to determine the Average Quantity of Shocks which are involved in each of the individual 'Progressive Patterns', we can determine that each of the individual 'Progressive Patterns' which are contained within the 'Progressive Pattern Set' of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fourth iteration of the Function of " $1 / 6$ " involve an Average of four Shocks (in that " $8+2+2+4+4+2+2+8=32$ ", and " $32 / 8=4$ "). We will continue to track the Average Quantity of Shocks which are contained in the 'Progressive Pattern Sets' of these 'Repetition Patterns' as we work our way through this sub-chapter.

Finally, before we move on to the next section, it should be noted that all of the individual 'Progressive Patterns' which are contained in the 'Progressive Pattern Set' which was examined in this section involve a 'Shock Pattern' of Positive followed by Negative ("+,-,..."), with this 'Shock Pattern' displaying Mirroring in relation to that which is displayed by the individual 'Progressive Patterns' which are contained in the 'Progressive Pattern Set' which was examined in the previous section (this being "-,,,..$"$ ". We will continue to track this Mirrored 'Shock Pattern' characteristic as we work our way through this sub-chapter.

That concludes this section, which involved an examination of the 'Progressive Pattern Set' of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fourth iteration of the Function of " $1 / 6$ ".

Next, we will examine the twenty-seven digit 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fifth iteration of the Function of " $1 / 6$ ", which is shown below.

$$
860082304526748971193415637 \ldots
$$

In this section, we will examine the chart of the 'Progressive Pattern Set' which is contained within the 'Repetition Pattern' which is seen above. This chart will be shown in a moment, after we quickly examine the twenty-seven individual 'Progressive Patterns' which are contained within this 'Repetition Pattern', all of which are listed below, along with their respective values of change and Quantities of Shocks. (This means that you can feel free to skip over the next three pages worth of 'Progressive Patterns', as we will only be working with the chart of the twenty-seven-member 'Progressive Pattern Set' which follows.) Also, it should be noted that throughout this section, the only 'Progressive Patterns' which will involve the standard, single changes in value will be the 'Multiples Of The 3' (the third, the sixth, the ninth, the twelfth, etc.), while all of the other 'Progressive Patterns' will display the familiar characteristic of three separate values of change. (The characteristic which involves the 'Multiples Of The $3^{\prime}$ behaving uniquely has been seen in previous chapters, as has that which involves three separate values of change.)

Also, before we list these twenty-seven 'Progressive Patterns', it should be quickly noted that the characteristic of three separate (repeating) values of change indicates that the Quantities of the values of change of these 'Progressive Patterns' display an 'X3 Growth Pattern', in that these 'Progressive Patterns' (for the most part) involve three times as many values of change as those which are contained within the previous 'Repetition Pattern'. This 'X3 Growth Pattern' indicates that 'Progressive Patterns' tend to Grow in a patterned manner through repeated iterations of the original Function, with these 'Growth Patterns' usually involving a member of the '3,6,9 Family Group' (in this case, the 3 ), as is the case in relation to the 'Growth Patterns' which are displayed by the 'Repetition Patterns' which contain the 'Progressive Patterns' (as has been explained in previous chapters). While the 'Progressive Patterns' which are contained within the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the next iteration of the Function of "1/6" (mostly) involve nine separate repeating values of change, with this 'Quantity Of Nine' maintaining the 'X3 Growth Pattern' which is displayed by the Quantities of the values of change of these 'Progressive Patterns' (though those 'Progressive Patterns' will not be examined in this book).

With all of that said, we can move on to the first of these twenty-seven 'Progressive Patterns', this being the 'One-Step $+7,+3,+1$ Progressive Pattern' which is shown below (with this 'Progressive Pattern' involving seven of each kind of Shock).
860082304526748971193415637(8)...
Next is the 'Two-Step $+1,+8,+4$ Progressive Pattern', which is shown below (with this 'Progressive Pattern' involving seven of each kind of Shock).

860082304526748971193415637860082304526748971193415637(8)...
Next is the 'Three-Step +2 Progressive Pattern', which is shown below (with this 'Progressive Pattern' involving two of each kind of Shock). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3', and therefore involves only one value of change, as was explained a moment ago.)
860082304526748971193415637(8)...
Next is the 'Four-Step $+9,+5,+3$ Progressive Pattern', which is shown below (with this 'Progressive Pattern' involving five of each kind of Shock).
8600823045267489711934156378600823045267489711934156378600823045267489711934156378600823045267489711 93415637(8)...

Next is the 'Five-Step $+3,+1,+6$ Progressive Pattern', which is shown below (with this 'Progressive Pattern' involving five of each kind of Shock).

```
860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 \(082304526748971193415637(8) \ldots\)
```

Next is the 'Six-Step +4 Progressive Pattern', which is shown below (with this 'Progressive Pattern' involving two of each kind of Shock). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3', and therefore involves only one value of change.)
860082304526748971193415637860082304526748971193415637(8)...
Next is the 'Seven-Step $+2,+7,+5$ Progressive Pattern', which is shown below (with this 'Progressive Pattern' involving five of each kind of Shock).
860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 $082304526748971193415637860082304526748971193415637860082304526748971193415637(8) \ldots$

Next is the 'Eight-Step $+5,+3,+8$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving five of each kind of Shock).

```
860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 \(082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637(8) \ldots\)
```

Next is the 'Nine-Step +6 Progressive Pattern', which is shown below (with this 'Progressive Pattern involving one of each kind of Shock). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3', and therefore involves only one value of change.)

860082304526748971193415637(8)...
Next is the 'Ten-Step $+4,+9,+7$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving six of each kind of Shock).

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 $304526748971193415637860082304526748971193415637(8) \ldots$

Next is the 'Eleven-Step $+7,+5,+1$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving six of each kind of Shock).

Next is the 'Twelve-Step +8 Progressive Pattern', which is shown below (with this 'Progressive Pattern involving one of each kind of Shock). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3', and therefore involves only one value of change.)

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637(8)...
Next is the 'Thirteen-Step $+6,+2,+9$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving seven of each kind of Shock).

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 526748971193415637(8)...

Next is the 'Fourteen-Step $+9,+7,+3$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving seven of each kind of Shock).

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 $526748971193415637860082304526748971193415637(8) \ldots$

Next is the 'Fifteen-Step +1 Progressive Pattern', which is shown below (with this 'Progressive Pattern involving one of each kind of Shock). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3', and therefore involves only one value of change.)

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 $082304526748971193415637(8) \ldots$

Next is the 'Sixteen-Step $+8,+4,+2$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving six of each kind of Shock).

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 $526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637(8) \ldots$

Next is the 'Seventeen-Step $+2,+9,+5$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving six of each kind of Shock).

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526 748971193415637(8)...

Next is the 'Eighteen-Step +3 Progressive Pattern', which is shown below (with this 'Progressive Pattern involving one of each kind of Shock). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3 ', and therefore involves only one value of change.)
860082304526748971193415637860082304526748971193415637(8)...
Next is the 'Nineteen-Step $+1,+6,+4$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving five of each kind of Shock). (This 'Progressive Pattern' shares a unique sub-pattern with an upcoming 'Progressive Pattern', and these two 'Progressive Patterns' will be compared in the endnotes of this sub-chapter.)

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526 $748971193415637860082304526748971193415637860082304526748971193415637(8) \ldots$

Next is the 'Twenty-Step $+4,+2,+7$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving five of each kind of Shock).

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526 $748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637(8) \ldots$

Next is the 'Twenty-One-Step +5 Progressive Pattern', which is shown below (with this 'Progressive Pattern involving two of each kind of Shock). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3', and therefore involves only one value of change.)

```
860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 \(082304526748971193415637860082304526748971193415637860082304526748971193415637(8) \ldots\)
```

Next is the 'Twenty-Two-Step $+3,+8,+6$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving five of each kind of Shock). (This is the aforementioned 'Progressive Pattern' which will be compared to the 'Nineteen Step Progressive Pattern' in the endnotes of this subchapter.)

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526 748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748 971193415637860082304526748971193415637(8)...

Next is the 'Twenty-Three-Step $+6,+4,+9$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving five of each kind of Shock).

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526 748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748 $971193415637860082304526748971193415637860082304526748971193415637(8) \ldots$

Next is the 'Twenty-Four-Step +7 Progressive Pattern', which is shown below (with this 'Progressive Pattern involving two of each kind of Shock). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3', and therefore involves only one value of change.)

860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 $082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637(8) \ldots$

Next is the 'Twenty-Five-Step $+5,+1,+8$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving seven of each kind of Shock).

Next is the 'Twenty-Six-Step $+8,+6,+2$ Progressive Pattern', which is shown below (with this 'Progressive Pattern involving seven of each kind of Shock).

```
860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860 082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082 304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304 526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526 748971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748 971193415637860082304526748971193415637860082304526748971193415637860082304526748971193415637860082304526748971 193415637860082304526748971193415637(8)...
```

Finally, there is the 'Twenty-Seven-Step +/- 9/0 Progressive Pattern', which is a 'No Change Progressive Pattern', and which is shown below (with this 'Progressive Pattern involving no Shocks of any kind). (This 'Progressive Patterns' involves a Quantity of steps which is a 'Multiple Of The 3', and therefore involves only one value of change.)

860082304526748971193415637(8)...

The 'Twenty-Seven-Step Progressive Pattern' which is seen above is a 'No Change Progressive Pattern', as was the case in relation to the 'Nine-Step Progressive Pattern' which is contained within the 'Repetition Pattern' which was examined in the previous section. This 'No Change Progressive Pattern' will be included in the chart which is shown below, though for the most part it will be disregarded, as the various sub-patterns which we will be examining do not involve this 'No Change Progressive Pattern'. (Again, this is due to the fact that these 'No Change Progressive Patterns' act as the separations between the Cycles of the 'Progressive Pattern Sets', as was explained in the previous section.)

Also, in looking at the 'Progressive Patterns' which are listed above, we can see that all of these 'Progressive Patterns' maintain 'Shock Party', in that they all involve equal Quantities of Positive and Negative Shocks (individually). While these 'Progressive Patterns' (which are contained within the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fifth iteration of the Function of "1/6") all involve a 'Shock Pattern' of Negative followed by Positive ("-,+,.."), with this 'Shock Pattern' displaying Mirroring in relation to that of the 'Progressive Patterns' which are contained within the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fourth iteration of the Function of " $1 / 6$ " (which is "+,-,..."). This means that this current 'Shock Pattern' also displays Matching in relation to that of the 'Progressive Patterns' which are contained within the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the third iteration of the Function of "1/6" (which is "-,,...$+ "$ ). This all indicates that the Mirrored 'Shock Pattern' characteristic which is displayed between the 'Shock Patterns' of the 'Progressive Patterns' which are contained within the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the iterations of the Function of " $1 / 6$ " is now a confirmed subpattern, which we will continue to track as we progress.

Next, we will examine a chart of the 'Progressive Pattern Set' which is contained within the 'Repetition Pattern' which is contained within 'Infinitely Repeating Decimal Number' quotient which is yielded by the fifth iteration of the Function of " $1 / 6$ ", which is shown below. (This chart contains columns which indicate the steps, values of change, and total Quantities of Shocks which are involved in each of the individual 'Progressive Patterns'. While the equal Shocks column which was included in the previous chart is not included in this chart, as we have already established that the characteristic of 'Shock Parity' maintains throughout all of these 'Progressive Patterns'.)

| steps | values of change | total Shocks |
| :---: | :---: | :---: |
| 1 | $7,3,1(2)$ | $14(5)$ |
| 2 | $1,8,4(4)$ | $14(5)$ |
| 3 | 2 | 4 |
| 4 | $9,5,3(8)$ | $10(1)$ |
| 5 | $3,1,6(1)$ | $10(1)$ |
| 6 | 4 | 4 |
| 7 | $2,7,5(5)$ | $10(1)$ |
| 8 | $5,3,8(7)$ | $10(1)$ |
| 9 | 6 | 2 |
| 10 | $4,9,7(2)$ | $12(3)$ |
| 11 | $7,5,1(4)$ | $12(3)$ |
| 12 | 8 | 2 |
| 13 | $6,2,9(8)$ | $14(5)$ |
| 14 | $9,7,3(1)$ | $14(5)$ |
| 15 | 1 | 2 |
| 16 | $8,4,2(5)$ | $12(3)$ |
| 17 | $2,9,5(7)$ | $12(3)$ |
| 18 | 3 | 2 |
| 19 | $1,6,4(2)$ | $10(1)$ |
| 20 | $4,2,7(4)$ | $10(1)$ |
| 21 | 5 | 4 |
| 22 | $3,8,6(8)$ | $10(1)$ |
| 23 | $6,4,9(1)$ | $10(1)$ |
| 24 | 7 | 4 |
| 25 | $5,1,8(5)$ | $14(5)$ |
| 26 | $8,6,2(7)$ | $14(5)$ |
| 27 |  |  |
| 27 | 9 | 0 |

The chart which is seen above displays a characteristic which is similar to that which is displayed by the chart which was seen in the previous section, in that the three vertical columns which are contained in this chart all Add to non-condensed sums which eventually condense to '3,6,9 Family Group' members, as is shown below. (These non-condensed sums do not include the values which pertain to the 'No Change Progressive Pattern'.)

```
steps - 351(9)
changes - 117(9)
total Shocks - 236(2)\
354(3)
equal Shocks -118(1)/
```

Above, we can see that the steps and changes columns each Add to a non-condensed sum which condenses to the 9, and the total Shocks column Adds to a non-condensed sum which condenses to the 2. While we can Halve the total Quantity of Shocks in order to yield the individual Quantities of each kind of Shock, with this Function yielding the non-condensed sum of 118, which condenses to the 1. This non-condensed sum of 118 Adds to the non-condensed sum of 236 which is yielded from the total Shocks column to yield a non-condensed sum of 354 , which condenses to the 3 . This condensed value of 3 maintains the '3,6,9 Family Group', as is the case in relation to the condensed sum of 3 which is yielded by Adding the non-condensed sums of the total and equal Shocks columns of the chart of the 'Progressive Pattern Set' which was examined in the previous section.
(It should be noted that the behavior of the condensed sums of the total and equal Shocks columns is due to the previously unmentioned fact that any Number which is Added to Half of itself (or Double itself) will always yield a non-condensed sum which condenses to a member of the '3,6,9 Family Group'.)

Also, if we Divide the total Quantity of Shocks which are contained in this 'Progressive Pattern Set' by the Quantity of individual 'Progressive Patterns' which are contained in this 'Progressive Pattern Set' (disregarding the 'No Change Progressive Pattern'), we can determine that the individual 'Progressive Patterns' which are contained in this particular 'Progressive Pattern Set' involve an Average of 9.076923... Shocks (in that "236/26=9.076923..."). The 'Repetition Pattern' which is contained within this 'Infinitely Repeating Decimal Number' quotient Adds to a non-condensed value of 27, which condenses to the 9 (in that " $0+7+6+9+2+3=27(9)$ "). While this 'Repetition Pattern' also involves three intertwined pairs of Siblings, as is shown below (with arbitrary highlighting).
076923...

Above, we can see that this 'Repetition Pattern' contains one instance each of the ' $2 / 7$ Siblings', the '3/6 Sibling/Cousins', and the '9/0 Sibling/Self-Cousins' (which are highlighted in green, blue, and red, respectively).

Also, this 'Repetition Pattern' contains a 'Progressive Pattern' which involves one step to the right, along with changes in value which involve the members of the '2/7 Siblings', as is shown below. (In this example, the individual changes in value are shown above the 'Progressive Pattern'.)

772227
076923(0)...
Above, we see a 'One-Step $+7,+7,+2,+2,+2,+7$ Progressive Pattern', which involves two of each kind of Shock (with these four Shocks involving a 'Shock Pattern' of "+,+,,-,-,.."). (Technically, this 'Progressive Pattern' could also be considered to be a 'One-Step -2,-2,-7,-7,-7,-2 Progressive Pattern'.)

Also (getting off of Averages, and back to the chart of this 'Progressive Pattern Set'), there is 'Sibling Mirroring' displayed between the concentric pairs of the condensed values of the sums of the multiple changes in value of each of the 'Progressive Patterns' (disregarding the 'No Change Progressive Pattern'), as is shown below, with the concentric pairs of Siblings highlighted arbitrarily in alternating red and green. (While there is also Matching displayed between the concentric pairs of condensed values which are contained within the total Shocks column, which is highlighted arbitrarily in green and red.)

| steps | values of change | total Shocks |
| :---: | :---: | :---: |
| 1 | $7,3,1(2)$ | $14(5)$ |
| 2 | $1,8,4(4)$ | $14(5)$ |
| 3 | 2 | 4 |
| 4 | $9,5,3(8)$ | $10(1)$ |
| 5 | $3,1,6(1)$ | $10(1)$ |
| 6 | 4 | 4 |
| 7 | $2,7,5(5)$ | $10(1)$ |
| 8 | $5,3,8(7)$ | $10(1)$ |
| 9 | 6 | 2 |
| 10 | $4,9,7(2)$ | $12(3)$ |
| 11 | $7,5,1(4)$ | $12(3)$ |
| 12 | 8 | 2 |
| 13 | $6,2,9(8)$ | $14(5)$ |
| 14 | $9,7,3(1)$ | $14(5)$ |
| 15 | 1 | 2 |
| 16 | $8,4,2(5)$ | $12(3)$ |
| 17 | $2,9,5(7)$ | $12(3)$ |
| 18 | 3 | 2 |
| 19 | $1,6,4(2)$ | $10(1)$ |
| 20 | $4,2,7(4)$ | $10(1)$ |
| 21 | 5 | 4 |
| 22 | $3,8,6(8)$ | $10(1)$ |
| 23 | $6,4,9(1)$ | $10(1)$ |
| 24 | 7 | 4 |
| 25 | $5,1,8(5)$ | $14(5)$ |
| 26 | $8,6,2(7)$ | $14(5)$ |
| 27 |  |  |
| 27 | 9 | 0 |

Above, we can see that these concentric forms of Mirroring and Matching maintain throughout this chart, even in relation to the 'Progressive Patterns' which only involve one value of change.

Next, we will examine the various forms of Mirroring and Matching which are displayed between the true 'Cross Numbers' which are contained within the steps and changes columns of the chart which is seen above, of which, a representative sample is shown below (with arbitrary highlighting which is explained below the chart). (This representative sample involves the first four concentric sets of four diametrically opposed condensed values which are contained within the steps and changes columns, all of which are shown through each of the 'Four Functions'.)

| 1,7/2,8 | "X" Match | "+" Siblings | "-" Match | "/" ? ? ? |
| :---: | :---: | :---: | :---: | :---: |
|  | $1 \mathrm{X7}=7(7)$ | $1+7=8(8)$ | $1-7=-6(3)$ | $1 / 7=$ * |
|  | $2 \mathrm{X} 8=7(7)$ | $2+8=10(1)$ | $2-8=-6(3)$ | $2 / 8=.25(7)$ |
| 2,5/4,7 | "X" Match | "+" Siblings | "-" Match | "/" ??? |
|  | $2 \mathrm{X} 5=10$ (1) | $2+5=7(7)$ | $2-5=-3(6)$ | $2 / 5=.4(4)$ |
|  | $4 \mathrm{X} 7=28(1)$ | $4+7=11(2)$ | $4-7=-3(6)$ | $4 / 7=*$ |
| 3,7/2,6 | "X" Match | " + " Siblings | "-" Match | "/" ? ? ? |
|  | $3 \mathrm{X} 7=21$ (3) | $3+7=10$ (1) | $3-7=-4(5)$ | $3 / 7=$ * |
|  | $2 \mathrm{X} 6=12(3)$ | $2+6=8(8)$ | $2-6=-4(5)$ | $2 / 6=*$ |
| 4,1/8,5 | "X" Match | " + " Siblings | "-" Match | "/" Match |
|  | $4 \mathrm{X} 1=4(4)$ | $4+1=5(5)$ | $4-1=3(3)$ | 4/1=4 (7) |
|  | $8 \mathrm{X} 5=40(4)$ | $8+5=13(4)$ | $8-5=3(3)$ | $8 / 5=1.6(7)$ |

Above, in relation to these four sets of true 'Cross Numbers', we can see that the four pairs of 'Multiplication Functions' which are contained within the first column yield four instances of Matching condensed solutions (all of which are highlighted in green), as is also the case in relation to the four pairs of 'Subtraction Functions' which are contained within the third column. (Though the Matching condensed differences which are yielded by the 'Subtraction Functions' mostly involve instances of 'Positive/Negative Sibling Mirroring'.) While the four pairs of 'Addition Functions' which are contained within the second column yield four instances of condensed sums which display 'Sibling Mirroring' between one another, all of which are highlighted in red. Finally, while three of the four pairs of 'Division Functions' which are contained within the fourth column are incomplete (due to the individual 'Invalid Functions'), the one complete pair of 'Division Functions' which is contained within this column yields condensed quotients which display Matching between one another, which indicates that the other three pairs of 'Division Functions' which are contained within this column likely yield condensed quotients which display Matching between one another (individually). While in this case, the solutions which involve condensed '3,6,9 Family Group' members are again oriented in the third vertical column (with the exception of the third pair of 'Subtraction Functions', which involve Matching condensed solutions of 5). (As of now, I have no explanation for this overall third column characteristic, though I suspect that it is due to the fact that the third columns all involve instances of the 'Subtraction Function'.)

Next, we will examine the various forms of Mirroring and Matching which are displayed between the true 'Cross Numbers' which are contained within the changes and total Shocks columns of the chart which is seen above (on a previous page), of which, a representative sample is shown below (with arbitrary highlighting which is explained below the chart). (This representative sample involves the first three concentric sets of the diametrically opposed condensed values which are contained within the changes and total Shocks columns, all of which are shown through each of the 'Four Functions'.)

| 2,5/5,7 | "X" Siblings | "+" shared pattern | "-" shared pattern | "/" ? ? ? |
| :---: | :---: | :---: | :---: | :---: |
|  | 2X5=10(1) | $2+5=7(7)$ | $2-5=-3(6)$ | 2/5=.4(4) |
|  | $5 \mathrm{X} 7=35(8)$ | $5+7=12(3)$ | $5-7=-2(7)$ | 5/7=* |
| 4,5/5,5 | " X " Siblings | "+" shared pattern | "-" shared pattern | "/" Siblings |
|  | 4X5=20(2) | $4+5=9(9)$ | $4-5=-1(8)$ | $4 / 5=.8(8)$ |
|  | $5 \mathrm{X} 5=25(7)$ | $5+5=10(1)$ | $5-5=0(9)$ | $5 / 5=1$ |
| 2,4/4,7 | " ${ }^{\text {P" Siblings }}$ | "+" shared pattern | "-" shared pattern | "/ " ? ? ? |
|  | $2 \mathrm{X} 4=8(8)$ | $2+4=6(6)$ | $2-4=-2(7)$ | $2 / 4=.5(5)$ |
|  | $4 \mathrm{X} 7=28(1)$ | $4+7=11(2)$ | $4-7=-3(6)$ | $4 / 7=*$ |

Above, in relation to these three sets of true 'Cross Numbers', we can see that the three pairs of 'Multiplication Functions' which are contained within the first column yield three instances of condensed products which display 'Sibling Mirroring' between one another (individually), all of which are highlighted in red. Also, the lone uncompromised pair of 'Division Functions' which is contained within the fourth column yields condensed quotients which display 'Sibling Mirroring' between one another (both of which are highlighted in red), with this instance of 'Sibling Mirroring' indicating that the other two pairs of 'Division Functions' which are contained within this column likely yield condensed quotients which display 'Sibling Mirroring' between one another (individually). While the center two columns display a form of Mirroring between one another, which is due to the fact that in this case, the '(+/-) Sibling Functions' display one overall shared pattern between one another which involves Matching Numbers and Siblings. In the first horizontal example, these two pairs of 'Sibling Functions' collectively yield a pair of Matching 7's (which is highlighted in green), along with one instance of '3/6 Sibling/Cousins' (which is highlighted in blue), with each of these pairs of condensed solutions displaying orientational Mirroring, in that the green 7's are oriented on the top of the pair of condensed sums, and on the bottom of the pair of condensed differences, while the blue '3/6 Sibling/Cousins' are oriented on the bottom of the condensed sums and on the top of the condensed differences, respectively. Then, in the next horizontal example, the '(+/-) Sibling Functions' yield condensed solutions which involve Matching 9's (which are highlighted in green), along with one instance of the '1/8 Sibling/Self-Cousins' (which is highlighted in blue), with each of these pairs of condensed solutions displaying orientational Mirroring. Finally, in the last horizontal example, the '(+/-) Sibling Functions' yield condensed solutions which involve Matching 6's (which are highlighted in green), along with one instance of the ' $2 / 7$ Siblings' (which is highlighted in blue), with each of these pairs of condensed solutions displaying orientational Mirroring. The shared pattern here involves the fact that each of these horizontal examples involves one pair of Matching condensed solutions (which are oriented on the top-left and bottom-right of each of the individual examples) along with one pair of condensed solutions which involves Siblings (which are oriented on the top-right and bottom-left of each of these examples), with these pairs of condensed solutions displaying orientational Mirroring within each of the three horizontal examples.

Next, we will examine the vertical and diagonal sub-patterns which are displayed (individually) by the values of change and Quantities of Shocks columns of the chart which is seen above (on a previous page). (This time around, the 'No Change Progressive Pattern' is included in the chart, due to the fact that it is involved in one of the sub-patterns.) This chart is shown again below, with the twenty-seven 'Progressive Patterns' listed one beneath the other, and with the individual values of change separated
(horizontally) in order to better indicate the four separate and intertwined sub-patterns which are displayed by these three columns of Numbers, all of which are highlighted in an arbitrary color code which is explained below the chart. While the rightmost column involves a list of the equal Shocks, which involves two intertwined sub-patterns which are also highlighted in arbitrary colors which are explained below the chart. (The Quantities of equal Shocks will be easier to work with here, as the total Quantities of Shocks involve multiple-digit Numbers.)
\(\left.\begin{array}{cccc}steps \& values of change \& equal Shocks <br>

1 \& 7 \& 3 \& 1\end{array}\right]\)| 7 |
| :---: |
| 2 |

The first of the six sub-patterns which are displayed by the chart which is shown above begins with the green 7 which is oriented on the top of the leftmost of the three individual values of change columns, and progresses downwards from there, skipping two red Numbers on each step, with these green Numbers forming the sub-pattern of $7,9,2,4,6,8,1,3,5$. This sub-pattern involves a simple ' +2 Growth Pattern' which carries out through one complete (though Shifted) iteration of the 'Base Set'.

While the next of these sub-patterns is displayed by the red pairs of Numbers which are skipped over by the previous sub-pattern. Progressing from top to bottom, these Numbers form the sub-pattern of $1,2,3,4,5,6,7,8,9,1,2,3,4,5,6,7,8,9$, with this sub-pattern involving a ' +1 Growth Pattern' which carries out through two standard (non-Shifted) runs of the 'Base Set', which are broken up into nine groups of two Numbers each.

Next, there are two orientationally Mirrored sub-patterns displayed by the squares of four colored Numbers which are oriented immediately to the right of the column which contains the previous two sub-patterns, both of which involve nine groups of two Numbers each (as was the case in relation to the previous sub-pattern). The green Numbers which run from the top-left to the bottom-right of each of the individual squares display the first of these sub-patterns, this being $3,4,5,6,7,8,9,1,2,3,4,5,6,7$, $8,9,1,2$, with this sub-pattern involving a ' +1 Growth Pattern' which carries out through two standard (though Shifted) runs of the 'Base Set'. While the red Numbers which run from the top-right to the bottom-left of each of the individual squares display the second of these sub-patterns, this being 1,8 , $3,1,5,3,7,5,9,7,2,9,4,2,6,4,8,6$, with this sub-pattern involving two intertwined ' +2 Growth Patterns', each of which carries out through one complete run of the 'Base Set' (the second of which is Shifted). (These two intertwined ' +2 Growth Patterns' could also be considered to be one single ' $+7,+4$ Growth Pattern', which would be our first example of a 'Growth Pattern' which involves multiple values of change.)

While the last two of the sub-patterns which are displayed by this chart run intertwined from the top to the bottom of the equal Shocks column (disregarding the 'No Change Progressive Pattern'), as is explained below.

First, the red pairs of Numbers which are contained within the equal Shock column display the subpattern of $7,7,5,5,5,5,6,6,7,7,6,6,5,5,5,5,7,7$, with this sub-pattern involving two Mirrored sub-subpatterns, as is highlighted below (with opposing arbitrary colors).

```
7,7, 5,5, 5,5, 6,6, 7,7, 6,6, 5,5, 5,5, 7,7
    -------------------> <---------------------
```

Above, we can see that this sub-pattern displays a form of 'Self-Mirroring', in that it contains two Matching 7,7, 5,5, 5,5, 6,6, 7 sub-sub-patterns which run from left to center and right to center.

While the green Numbers which are intertwined with the red Numbers which comprise the previous sub-pattern display the sub-pattern of $2,2,1,1,1,1,2,2$, with this sub-pattern displaying a form of 'SelfMirroring' which is similar to that which is displayed by the previous sub-pattern, as is shown below (again with opposing arbitrary colors).

```
2,2,1,1,1,1,2,2
---------> <---------
```

Above, we can see that this sub-pattern displays a form of 'Self-Mirroring', in that it contains two Matching 2,2,1,1 sub-sub-patterns which run from left to center and right to center.

That rather abruptly brings an end to this sub-chapter (except for the endnotes, which are included below), as the 'Repetition Pattern' which is contained in the 'Infinitely Repeating Decimal Number' quotient which is yielded by the next iteration of the Function of " $1 / 6$ " contains a 'Progressive Pattern Set' which contains eighty-one separate, intertwined 'Progressive Patterns' (including the 'No Change Progressive Pattern'), and as such, is far to cumbersome to be included in this (or any) sub-chapter.

## Endnotes

As was mentioned in the main part of this sub-chapter, the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fourth iteration of the Function of " $1 / 6$ " contains an alternate 'Progressive Pattern Set', one which involves a slight alteration of the changes column. The steps column is locked into a progression of $1-8$, which means that we cannot alter any of the Numbers which are contained within that column, though we are able switch the outermost of the concentric Sibling pairs which are contained within the changes column, these being the ' $4 / 5$ Siblings', which are highlighted arbitrarily in red. These ' $4 / 5$ Siblings' are the closest in value to one another of all of the Sibling pairs (as there is no separation between the Numbers 4 and 5), which means that by switching these particular Siblings, we cause less of a disruption than we would by switching any of the other Sibling pairs. Therefore, in the first section of these endnotes, we will switch the outermost of the concentric Sibling pairs which are contained within the changes column of the chart of the 'Progressive Pattern Set' of the fourth iteration of the Function of "1/6" (by altering those two 'Progressive Patterns'), in order to examine what this switch does to the Shock totals which are contained within the third and fourth columns of the chart. These two altered 'Progressive Patterns' are both shown and explained below.

First, we will change the 'One-Step +4 Progressive Pattern' to a 'One-Step +5 Progressive Pattern', which is shown below.

> 160493827(1)...
> I| I I I

Above, we can see that this 'One-Step +5 Progressive Pattern' maintains, with the inclusion of five 'Negative Shocks', four of which are 'Shocks Of 2' (while the other Shock is a standard 'Shock Of 1'), which means that this 'Progressive Pattern' does not maintain the characteristic of 'Shock Parity'. However, a form of 'Shock Parity' will be displayed between this 'One-Step +5 Progressive Pattern' and the altered 'Eight-Step Progressive Pattern' which is contained within this same 'Repetition Pattern', as will be explained along with the next example.

Next, we will change the 'Eight-Step +5 Progressive Pattern' to an 'Eight-Step +4 Progressive Pattern', which is shown below.
$160493827160493827160493827160493827160493827160493827160493827160493827(1) \ldots$

Above, we can see that this 'Eight-Step +4 Progressive Pattern' displays a form of 'Shock Parity' in relation to the previous 'Progressive Pattern', in that this 'Progressive Pattern' involves five 'Positive Shocks', four of which are 'Shocks Of 2' and the other of which is a standard 'Shock Of 1'. These four 'Positive Shocks Of 2' and one 'Positive Shock Of 1' collectively display Mirroring in relation to the Shocks which were involved in the previous 'Progressive Pattern' (which involved four 'Negative Shocks Of 2' and one 'Negative Shock Of 1'). While there is also orientational Mirroring displayed between these two 'Shock Patterns', with this current 'Shock Pattern' involving the arrangement of
"I,I,I, |,I" (which indicates Shocks of 2,2,2,1, and 2) while the previous 'Shock Pattern' involved the orientationally Mirrored arrangement of "I, $\mid, 1, I, I$ " (which indicates Shocks of 2,1,2,2, and 2).

Next, we will include these new values of change and Shocks in the appropriate columns of the chart of this 'Progressive Patten Set', in order to see how these columns are affected by this switch. The chart of this altered 'Progressive Pattern Set' is shown below.

| steps | values of change | total Shocks | equal Shocks |
| :---: | :---: | :---: | :---: |
| 1 | 5 | 5 | $\mathrm{~N}(5 \mathrm{~N}$ 4I's) |
| 2 | 8 | 2 | $\mathrm{Y}(1 \mathrm{P}$ 1N) |
| 3 | 3 | 2 | $\mathrm{Y}(1 \mathrm{P}$ 1N) |
| 4 | 7 | 4 | $\mathrm{Y}(2 \mathrm{P} 2 \mathrm{~N})$ |
| 5 | 2 | 4 | $\mathrm{Y}(2 \mathrm{P} 2 \mathrm{~N})$ |
| 6 | 6 | 2 | $\mathrm{Y}(1 \mathrm{P}$ 1N) |
| 7 | 1 | 2 | $\mathrm{Y}(1 \mathrm{P} 1 \mathrm{~N})$ |
| 8 | 4 | 5 | N (5P 4I's) |

Above, we can see that alternate forms of concentric Matching are displayed by both of the Shocks columns, while an alternate form of concentric 'Sibling Mirroring' is displayed by the changes column. (This alternate 'Progressive Pattern Set' has been included in these endnotes due to the fact that this alternate form of 'Sibling Mirroring' occurs along with the alternate form of Matching which is displayed by the (new) Quantities of Shocks.)
$* * * * * * * * *$

Next, we will examine the two Matching sub-patterns which were mentioned in the main part of this sub-chapter. These sub-patterns are contained within two of the 'Progressive Patterns' which are contained within the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fifth iteration of the Function of " $1 / 6$ ", as is shown and explained below.

First, there is the 'Nineteen-Step $+1,+6,+4$ Progressive Pattern' which is contained within this 'Repetition Pattern', which is shown below in a slightly larger font, which causes the 'Repetition Pattern' to align into seventy-six-digit horizontal rows.

```
8600823045267489711934156378600823045267489711934156378600823045267489711934
1563786008230452674897119341563786008230452674897119341563786008230452674897
1193415637860082304526748971193415637860082304526748971193415637860082304526
7489711934156378600823045267489711934156378600823045267489711934156378600823
0452674897119341563786008230452674897119341563786008230452674897119341563786
0082304526748971193415637860082304526748971193415637860082304526748971193415
637860082304526748971193415637860082304526748971193415637(8)...
```

Above, we can see that when multiple iterations of this 'Repetition Pattern' are aligned into seventy-sixdigit rows, the constituent Numbers of the 'Nineteen-Step $+1,+6,+4$ Progressive Pattern' reveal a new sub-pattern, one which runs throughout the vertical columns of Numbers, as is explained below. (Variations on this sub-pattern run intertwined through all of these vertical columns, though the specifics of this intertwinement is too complex to be examined in these endnotes. Therefore, we will only be focusing on the four highlighted columns (those which have "*'s" above them), which display a behavior which is also shared by all of the other vertical columns.)

First, we will strip away all of the non-highlighted vertical columns which are seen above, which will leave only the four highlighted columns, which are shown below. (The four columns which are seen below contain one complete iteration of this particular sub-pattern, as will be explained in a moment, when we display these four columns as one horizontal row.)

```
8960
1833
1563
755
0712
0442
674(8)
```

Next, we will examine the various forms of 'Cross Mirroring' which are displayed between these four vertical columns of Numbers (with these forms of Mirroring involving squares of four Numbers which Add diametrically to a pair of fellow Family Group members), as is shown below. (Three examples of the same four columns are shown below, in order to indicate the 'Family Group Mirroring' which is displayed between all of the instances of Neighboring columns.)

| $8960(7)$ | $8960(3)$ | $8960(9)$ |
| :--- | :--- | :--- |
| $1833(1)$ | $1833(6)$ | $1833(3)$ |
| $1563(9)$ | $1563(1)$ | $1563(9)$ |
| $7859(3)$ | $7859(4)$ | $7859(6)$ |
| $0712(4)$ | $0712(2)$ | $0712(3)$ |
| $0442(7)$ | $0442(5)$ | $0442(6)$ |
| $6748(6)(6)$ | $6748(4)(4)$ | $6748(4)(4)$ |

Above, we can see that a form of 'Family Group Mirroring' is displayed between the sums of the squares of four diametrically opposed 'Cross Numbers' (those which are contained within the Neighboring columns). (In this case, the color code which is used within the charts involves arbitrary green and red highlighting, while the condensed sums (which display the 'Family Group Mirroring') are all highlighted in a Family Group color code.) First, in looking at the top-left square of four Numbers which is contained within the leftmost of the three examples which are seen above, we can see that the top-left 8 and the bottom-right 8 (both of which are highlighted in green) Add to the condensed 7, which is shown to the right of this square of four Numbers (in parentheses, and highlighted in green). Then, to complete this first square of four Numbers, the top-right 9 and the bottom-left 1 (both of which are highlighted in red) Add to the condensed 1, which is shown to the right of this square of four Numbers (again in parentheses, and in the same green highlighting, which indicates that this condensed

1 is a ' $1,4,7$ Family Group' member, as is the case in relation to the condensed 7). This first square of four Numbers is followed (vertically) by three more squares of Numbers, each of which yields condensed sums which display a similar form of 'Family Group Mirroring' when its 'Cross Numbers' are Added in this manner. (These condensed sums are all shown above, and highlighted in a Family Group color code.) While the bottom-left pair of highlighted Numbers which is contained within the leftmost chart (which involves the 6 and the 7) technically maintains this form of 'Family Group Mirroring' in relation to the top-left pair of highlighted Numbers which is contained within this chart (which involves the 8 and the 9), as is indicated to the right of the bottommost row of Numbers (in parentheses). (These bottommost condensed sums display Matching between one another in relation to all three of these examples.) Then, the next two (center and rightmost) examples both involve similar instances of 'Family Group Mirroring' (all of which involve squares of four Numbers), with each of these examples involving two instances of Shocks, with these four Shocks maintaining 'Shock Parity', in that there are two instances of 'Positive Shocks' and two instances of 'Negative Shocks' (all of which are highlighted arbitrarily in brown).

Next, we will align these four vertical columns into one horizontal row of Numbers, as is shown below (with all of the previous highlighting removed).

$$
811700698587476365144033922 \ldots
$$

The row of Numbers which is seen above was originally yielded (in an alternate arrangement) as the constituent Numbers of the 'Nineteen-Step $+1,+6,+4$ Progressive Pattern' which is contained within the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the fifth iteration of the Function of "1/6". (In relation to the 'Nineteen-Step $+1,+6,+4$ Progressive Pattern', the arrangement of Numbers is 896018331563785907120442674 .) Though when these same twenty-seven Numbers are arranged in the order which is seen above, they form the constituent Numbers of a 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern' (which is contained within the same 'Repetition Pattern'), as is explained below.

This 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern' is contained within the same 'Repetition Pattern' as the 'Nineteen-Step $+1,+6,+4$ Progressive Pattern' which was seen in the main part of this sub-chapter. Though while nineteen iterations of the 'Repetition Pattern' are enough to represent the 'Nineteen-Step $+1,+6,+4$ Progressive Pattern' through one complete iteration (as was seen in the main part of this subchapter), nineteen iterations of this same 'Repetition Pattern' are not nearly enough to represent one complete iteration of the 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern'. (The 'Nineteen-Step $+1,+6,+4$ Progressive Pattern' requiring nineteen iterations of the 'Repetition Pattern' in order to be displayed completely through one iteration appears to be a just a coincidence.) Though due to the Fractal quality of 'Progressive Patterns', if we were to track this 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern' as it Progresses repeatedly through the same nineteen iterations of this 'Repetition Pattern', it would eventually form a series of four vertical columns of highlighted Numbers which would completely represent the 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern' (through one iteration). This would cause the constituent Numbers of the 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern' to fall on the constituent Numbers of the 'Nineteen-Step $+1,+6,+4$ Progressive Pattern', only in an alternate order.

With that said, the constituent Numbers of this 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern' are shown again below, this time with all of their appropriate Shocks highlighted in the standard color code. (To clarify, all of the previous highlighting was either arbitrary, or in relation to the 'NineteenStep $+1,+6,+4$ Progressive Pattern'.)

## 811700698587476365144033922...

Above, we see the twenty-seven constituent Numbers of this 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern'. While the constituent Numbers of the 'Twenty-Two-Step $+3,+8,+6$ Progressive Pattern' which is contained within the same 'Repetition Pattern' display Matching in relation to those which are seen above, as is shown and explained below.

The aforementioned 'Twenty-Two-Step $+3,+8,+6$ Progressive Pattern' which is contained within the same 'Repetition Pattern' is shown (again) below.

86008230452674897119341563786008230452674897119341563786008230452674897119341563786 00823045267489711934156378600823045267489711934156378600823045267489711934156378600 82304526748971193415637860082304526748971193415637860082304526748971193415637860082 30452674897119341563786008230452674897119341563786008230452674897119341563786008230 45267489711934156378600823045267489711934156378600823045267489711934156378600823045 26748971193415637860082304526748971193415637860082304526748971193415637860082304526 74897119341563786008230452674897119341563786008230452674897119341563786008230452674 8971193415637(8)...

Next, we will remove all of the non-highlighted Numbers from this 'Repetition Pattern', which will leave the twenty-seven constituent Numbers of the 'Twenty-Two-Step $+3,+8,+6$ Progressive Pattern' (all of which have their Shocks highlighted in the standard color code). The constituent Numbers of this 'Twenty-Two-Step $+3,+8,+6$ Progressive Pattern' are shown below, listed above the constituent Numbers of the previous 'Seventy-Six-Step +3,+8,+6 Progressive Pattern'.
'Twenty-Two-Step +3,+8,+6 Progressive Pattern': $811700698587476365144033922 . .$. 'Seventy-Six-Step +3,+8,+6 Progressive Pattern': $811700698587476365144033922 \ldots$

Above, we can see that the constituent Numbers of the 'Twenty-Two-Step $+3,+8,+6$ Progressive Pattern' display Matching in relation to the constituent Numbers of the 'Seventy-Six-Step $+3,+8,+6$ Progressive Pattern' which is contained within the same 'Repetition Pattern' (Numerically, as well as in terms of their Shocks).

These Matching 811700698587476365144033922 ... 'Progressive Patterns' indicate the Fractal quality which is displayed by the 'Progressive Patterns' which are contained within a 'Repetition Pattern'. (The Fractal quality of 'Progressive Patterns' will be examined again in the endnotes of "Chapter 6.6: 'Averages' ".)

