## Chapter 6.6: "Averages"

In "Chapter 6", it was noted that the condensed values of the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the iterations of the Function of " $1 / 6$ " display a $6,7,8,4,2,1,5,7,8$ sub-pattern, which (disregarding the 6 which is yielded by the first iteration) involves the '1,2,4,8,7,5 Core Group', running backwards through one and a half iterations. In that parent chapter, we also touched on the idea that the first of these 'Repetition Patterns' would need to condense to the 5 (as opposed to the 6) in order to maintain the reversed '1,2,4,8,7,5 Core Group' sub-pattern. Though the first of these 'Repetition Patterns' only contains one digit (this being the 6), and therefore yields a condensed value which displays Matching in relation to its noncondensed value. This is due to the fact that a 'Repetition Pattern' which contains a single digit possesses minimal Freedom, where as a 'Repetition Pattern' (or any other form of multiple-digit Number) which contains a Greater Quantity of digits possesses more Freedom, in that there is a Greater variety of manners in which it can arrive at its target condensed value. For example, if the first of these 'Repetition Patterns' were to contain a second Number in addition to the 6 , then it would possess a bit more Freedom, in that it would possess the ability to condense down to any of the 'Base Numbers', depending on the Quality (value) of the second Number. (For example, the multiple-digit 'Repetition Pattern' 61 would condense to the 7 , while the multiple-digit 'Repetition Pattern' 68 would condense to the target 5.) While the level of Freedom which is possessed by a 'Repetition Pattern' Grows exponentially with the inclusion of each additional (single-digit) Number, in that the Greater the Quantity of digits which are contained within the 'Repetition Pattern', the more Freedom that 'Repetition Pattern' has to condense down to a specific value (in a Greater variety of manners). (For example, if this 'Repetition Pattern' were to contain two other digits in addition to the 6 , then it would be able to condense to the target value of 5 by partnering with the 1 and the 7 , the 2 and the 6 , the 3 and the 5, etc. .) This Freedom (or an effect or result of it, or possibly even a constraint on it) is also indicated by the Averages of the Numbers which are contained within each of these 'Repetition Patterns', and it is these Averages which will be the subject of this sub-chapter. (While the concept of Freedom will not be examined any further in this book.)

This means that in this sub-chapter, we are going to be working with Averages, which are determined by Dividing the non-condensed sum a multiple-digit Number (of any kind) by its Quantity of digits, as has been explained previously. For example, if we Add all of the 'Base Numbers' together, they yield the non-condensed sum of 45 (as was seen in "Interlude Three"), and since there are ten Numbers in the 'Base Set' (counting the 0 independently), Dividing the sum of 45 by the Quantity of ten will yield the quotient of 4.5 (as " $45 / 10=4.5$ "), with this value of 4.5 being the Average value of the constituent members of the 'Base Set'. It is this same basic method of Addition and subsequent Division which we will be performing on each of these 'Repetition Patterns', in order to determine the Average value of their constituent Numbers.

The Average of 4.5 is considered to be the "Base Average", in that it is the Average value of all of the individual Numbers which are contained within the 'Base Set'. While this value of 4.5 can also be seen in the center of the 'Base Set', in that if we replace the centermost comma with a decimal point, this will turn the 4 and the 5 into the 'Base Average' of 4.5, as is shown below (with the value of 4.5 highlighted
arbitrarily in red). (The 'Base Average' of 4.5 will be used as a baseline for comparison throughout this sub-chapter.)

$$
0,1,2,3,4.5,6,7,8,9
$$

(Before we move on, it should be noted that the 'Base Average' of 4.5 is also the Average value of the constituent members of each of the Sibling pairs, as each of the pairs of Siblings involves two Numbers which Add to the 9 , and " $9 / 2=4.5$ ".)

With all of that said, we will now examine the Average values of the constituent Numbers of the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the first Cycle of nine iterations of the Function of " $1 / 6$ ". The first two of these iterations both yield quotients which contain single-digit 'Repetition Patterns', which means that the Average values of the constituent Numbers of these 'Repetition Patterns' display Matching in relation to their respective non-condensed values. (This is due to the fact that these Averages are yielded by Dividing the non-condensed values of their respective 'Repetition Patterns' by the 1.) Therefore we will skip over those two iterations, and start instead with the third iteration of the Function of " $1 / 6$ ", which contains a three-digit 'Repetition Pattern' which Adds to a non-condensed value of 17. This means that the Average value of the constituent Numbers of this 'Repetition Pattern' can be yielded by Dividing the non-condensed value of 17 by the Quantity of three, as is shown below. (The first few of these 'Infinitely Repeating Decimal Number' quotients will be shown through three iterations of their 'Repetition Patterns', with the first iteration highlighted in red, and the second two non-highlighted iterations of the longer 'Repetition Patterns' separated by a " $\left({ }^{*}\right)$ ", as has been the case throughout these chapters.)

## $17 / 3=5.666 \ldots$

Above, we can see that the Average value of the Numbers 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 " $1 / 6$ " is $5.6 \ldots$, with this Average being a bit Greater than the 'Base Average' of 4.5. (We will examine the 'Repetition Patterns' which are contained within these Averages a bit later in this sub-chapter.)

Next, we will determine the Average value of the constituent Numbers 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 " $1 / 6$ ", as is shown below.
$40 / 9=4.444 \ldots$
Above, we can see that this example involves an Average of 4.4..., with this Average being closer to the 'Base Average' than that which was seen in relation to the previous example (which involved an Average of 5.6...). This increased proximity to the 'Base Average' indicates one of the sub-patterns which are displayed by these Averages (collectively), in that each of these Averages will be closer to the 'Base Average' than all of the previous Averages. (This sub-pattern will be tracked as we progress.)

Next, we will determine the Average value of the constituent Numbers of 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 below.

Above, we can see that this Average of 4.407 is closer to the 'Base Average' than the Averages which were seen in relation to the previous two examples, which maintains that sub-pattern. Also, the 'Repetition Pattern' which is contained within this Average contains three digits, which indicates that the Quantities of digits which are contained within these 'Repetition Patterns' display an 'X3 Growth Pattern'. (This 'X3 Growth Pattern' will be tracked as we progress.)

Next, we will determine the Average value of the constituent Numbers of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the sixth iteration of the Function of " $1 / 6$ ", as is shown below.
$361 / 81=4.456790123456790123(*) 456790123 \ldots$
Above, we can see that this Average of $4.456790123 \ldots$ is closer to the 'Base Average' than the Averages which were seen in relation to the previous three examples, which confirms that particular sub-pattern. While the 'Repetition Pattern' which is contained within this Average contains nine digits, with this 'Quantity Of Nine' maintaining the 'X3 Growth Pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns'. Also, this 'Repetition Pattern' involves a familiar pattern which involves an ordered (though Shifted) run of the 'Base Set' (including the 0), only without the 8 . (This $0,1,2,3,4,5,6,7,9$ pattern is familiar, in that it has been seen in previous chapters.)

Next, we will determine the Average value of the constituent Numbers of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the seventh iteration of the Function of " $1 / 6$ ", as is shown below (with only two iterations of this longer 'Repetition Pattern' shown).

$$
1094 / 243=4.502057613168724279835390946502057613168724279835390946 \ldots
$$

Above, we can see that this Average is closer to the 'Base Average' than the Averages which were seen in relation to the previous four examples, which maintains that sub-pattern. While the 'Repetition Pattern' which is contained within this Average contains twenty-seven digits, with this 'Quantity Of Twenty-Seven' confirming the 'X3 Growth Pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns'.

Next, we will determine the Average value of the constituent Numbers of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the eighth iteration of the Function of " $1 / 6$ ", as is shown below (through only one iteration of its 'Repetition Pattern', as will be the case in relation to all of these longer 'Repetition Patterns').
$3283 / 729=4.503429355281207133058984910836762688614540466392318244170096021947873799725651577 \ldots$
Above, we can see that this Average is closer to the 'Base Average' than the Averages which were seen in relation to the previous five examples, which maintains that sub-pattern. While the 'Repetition Pattern' which is contained within this Average contains eighty-one digits, with this 'Quantity Of Eighty-One' maintaining the 'X3 Growth Pattern' which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns'.

Next, we will determine the Average value of the constituent Numbers of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the ninth iteration of the Function of " $1 / 6$ ", as is shown below.
$9845 / 2187=4.5016003657978966620941929583904892546867855509830818472793781435756744398719707361682670$ 324645633287608596250571559213534522176497485139460448102423411065386374028349336991312299954275262 91723822588020118884316415180612711476909007773205304069...

Above, we can see that this Average is closer to the 'Base Average' than the Averages which were seen in relation to the previous six examples, which maintains that sub-pattern. While the 'Repetition Pattern' which is contained within this Average contains two hundred and forty-three digits, with this 'Quantity Of Two Hundred And Forty-Three' maintaining the 'X3 Growth Pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns'.

That completes this Cycle of nine iterations of the Function of " $1 / 6$ ", and therefore brings this section to a close, as the next Cycle of nine iterations will yield 'Infinitely Repeating Decimal Number' quotients which contain over one-million digits, and without a more powerful calculator, I cannot determine the non-condensed values of the 'Repetition Patterns' which would be required in order to determine the next Cycle of Averages. (While the 'Progressive Patterns' which are contained within the first Cycle of nine 'Repetition Patterns' will be the subject of the next few sections of this sub-chapter.)

## ※ ※ ※ ※ ※ ※ * *

Next, in this relatively brief section, we will examine the first Cycle of three 'Progressive Patterns' which are contained within the 'Repetition Pattern' of the Average value of the constituent Numbers of 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" (with this being the first of the multipledigit 'Repetition Patterns' of these Averages), all of which is shown and explained below.

First, we will examine the 'One-Step +6 Progressive Pattern' which is contained within this 'Repetition Pattern', which is shown below. (Throughout this sub-chapter, the 'Progressive Patterns' will all be highlighted in the standard color code, which means that all of the 'Positive Shocks' will be highlighted in green, all of the 'Negative Shocks' will be highlighted in red, and all of the non-Shocked Numbers will be highlighted in blue.)

$$
.407(4) . . .
$$

Above, we can see that this 'One-Step +6 Progressive Pattern' maintains, with the inclusion of one of each kind of Shock (with these Shocks involving a "-,+,..." 'Shock Pattern').

While this same 'Repetition Pattern' also contains the 'Two-Step +3 Progressive Pattern' which is shown below.

$$
.40740740(7) \ldots
$$

Above, we can see that this 'Two-Step +3 Progressive Pattern' maintains, with the inclusion of one of each kind of Shock (with these Shocks involving a "-,+,..." 'Shock Pattern' which displays Matching in relation to that which is involved in the 'One-Step +6 Progressive Pattern' which was examined a moment ago).

Next is the 'Three-Digit Progressive Pattern' which is contained within this 'Repetition Pattern', with this being the 'No Change Progressive Pattern' which separates the Cycles of the 'Progressive Pattern Set'. (While the 'Four-Step Progressive Pattern' would display Matching in relation to the 'One-Step Progressive Pattern', the 'Five-Step Progressive Pattern' would display Matching in relation to the 'Two-Step Progressive Pattern', etc., as has been explained previously.)

Next, we will list the values of change of these three 'Progressive Patterns', along with the Quantities of Shocks which they contain, all of which is shown below, with arbitrary highlighting which is explained below the chart. (The 'No Change Progressive Pattern' is not involved in any of these instances of Mirroring and Matching (as has been explained previously), and is therefore shown separate from the rest of the chart, as will be the case with all of the 'Progressive Pattern Sets' which will be examined in this sub-chapter.)

| steps | values of change | equal Shocks |
| :---: | :---: | :---: |
| 1 | 6 | 1 |
| 2 | 3 | 1 |
| 3 | 0 | 0 |

Above, we can see that the values of change of these 'Progressive Patterns' display 'Sibling/Cousin Mirroring' between one another (which is highlighted in blue), while their Quantities of Shocks display Matching between one another (which is highlighted in red).

Next, we will examine the nine 'Progressive Patterns' which comprise the first Cycle of the 'Progressive Pattern Set' which is contained within the 'Repetition Pattern' of the Average value of the constituent Numbers of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the sixth iteration of the Function of " $1 / 6$ ", all of which are shown below.

First, we will examine the 'One-Step +1 Progressive Pattern' which is contained within this 'Repetition Pattern', which is shown below.

$$
.456790123(4) \ldots
$$

Above, we can see that this 'One-Step +1 Progressive Pattern' maintains, with the inclusion of one of each kind of Shock. (These Shocks involve a "+,-,..." 'Shock Pattern', as will be the case in relation to all of the 'Progressive Patterns' which are contained in this 'Progressive Pattern Set' (with the exception of those which do not involve Shocks). This 'Shock Pattern' displays Mirroring in relation to that which was involved in the 'Progressive Patterns' which are contained in the previous 'Progressive Pattern Set'.)

Next, we will examine the 'Two-Step +2 Progressive Pattern' which is contained within this same 'Repetition Pattern', with this 'Progressive Pattern' indicating the simple sub-pattern which is displayed by these 'Progressive Patterns' (collectively), as is shown and explained below.

$$
.456790123456790123(4) \ldots
$$

Above, we can see that this 'Two-Step +2 Progressive Pattern' maintains, with the inclusion of one of each kind of Shock. This 'Two-Step +2 Progressive Pattern' indicates the sub-pattern which is displayed by the 'Progressive Patterns' which are contained in this 'Progressive Pattern Set' (collectively), this being that the Quantities of steps which are involved in each of these individual 'Progressive Patterns' display Matching in relation to the change in value which is involved in their respective 'Progressive Pattern'. Therefore, having established this simple sub-pattern, we will just list the seven remaining 'Progressive Patterns', one after the other, after which we will examine a chart of this 'Progressive Pattern Set'.

Next is the 'Three-Step +3 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves no Shocks of either kind, as is shown below. (This 'Progressive Pattern' does not involve any Shocks due to the fact that it involves a Quantity of steps which is a 'Multiple Of The 3', with this being a characteristic which has been seen in previous chapters.)

$$
.456790123456790123(4) . .
$$

Next is the 'Four-Step +4 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.

$$
.456790123456790123456790123456790123(4) \ldots
$$

Next is the 'Five-Step +5 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.

$$
.456790123456790123456790123456790123456790123(4) \ldots
$$

Next is the 'Six-Step +6 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves no Shocks of any kind, as is shown below.

$$
.456790123456790123456790123456790123(4) \ldots
$$

Next is the 'Seven-Step +7 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.

$$
.456790123456790123456790123456790123456790123456790123456790123(4) \ldots
$$

Next is the 'Eight-Step +8 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.
. $456790123456790123456790123456790123456790123456790123456790123456790123(4) \ldots$
Next is the 'Nine-Step +/-9/0 Progressive Pattern' which is contained within this same 'Repetition Pattern', with this being the 'No Change Progressive Pattern' which which separates the Cycles of the 'Progressive Pattern Set'.

Next, we will list the values of change of these nine 'Progressive Patterns', along with the Quantities of Shocks which they contain, all of which is shown below (with arbitrary highlighting which is explained below the chart).

| steps | values of change | equal Shocks |
| :---: | :---: | :---: |
| 1 | 1 | 1 |
| 2 | 2 | 1 |
| 3 | 3 | 0 |
| 4 | 4 | 1 |
| 5 | 5 | 1 |
| 6 | 6 | 0 |
| 7 | 7 | 1 |
| 8 | 8 | 1 |
| 9 | 0 | 0 |


#### Abstract

Above, we can see that the first two columns of the chart display Matching between one another, with this Matching being due to the aforementioned fact that each of these 'Progressive Patterns' involves a Quantity of steps which displays Matching in relation to its value of change. While these two columns both display a concentric form of 'Sibling Mirroring' (individually), which is highlighted in various arbitrary colors, as is the concentric form of Matching which is displayed by the equal Shocks column.


While the three columns of Numbers which are contained within the chart which is seen above Add to the sums which are shown below (the various qualities of the 'No Change Progressive Pattern' are not included in these totals). (The sum of the unseen total Shocks column is included in this list, and is yielded by simply Doubling the Quantity of equal Shocks.)

$$
\begin{array}{lr}
\text { steps - } & 36(9) \\
\text { changes - } & 36(9) \\
\text { total Shocks - } & 12(6) \\
\text { equal Shocks - } 6(3)
\end{array}
$$

Above, we can see that all of these condensed values involve members of the '3,6,9 Family Group'. This characteristic (or a variation on it) has been displayed by all of the 'Progressive Pattern Sets' which have been examined in previous chapters, and will be displayed by all of the rest of the 'Progressive Pattern Sets' which will be examined as we work our way through this sub-chapter. (While a familiar variation on this characteristic which involves Adding the non-condensed sums of the equal and total Shocks columns together in order to yield a sum which condenses to a member of the '3,6,9 Family Group' was displayed by the chart of the 'Progressive Pattern Set' which was examined in the previous section, though we did not bother to note it at the time.)

Next, we will examine the twenty-seven-member 'Progressive Pattern Set' which is contained within the 'Repetition Pattern' of the Average value of the constituent Numbers of the 'Repetition Pattern'
which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the seventh iteration of the Function of " $1 / 6$ ". The twenty-seven 'Progressive Patterns' which comprise this 'Progressive Pattern Set' will display the same characteristic as those which comprise 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 fifth iteration of the Function of "1/6" (which were examined in "Chapter 6.3"), in that most of these 'Progressive Patterns' will involve three separate (repeating) values of change. (While as was the case previously, the 'Progressive Patterns' which are 'Multiples Of The 3' will all involve single values of change.) The chart of this 'Progressive Pattern Set' 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.)

First is the 'One-Step $+5,+1,+8$ Progressive Pattern' which is contained within this 'Repetition Pattern', which involves ten of each kind of Shock, as is shown below.

502057613168724279835390946(5)...
Next is the 'Two-Step $+6,+4,+9$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves seven of each kind of Shock, as is shown below.
$502057613168724279835390946502057613168724279835390946(5) \ldots$
Next is the 'Three-Step +5 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves four of each kind of Shock, as is shown below.
$502057613168724279835390946(5) \ldots$
Next is the 'Four-Step $+1,+6,+4$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.
$502057613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946(5) \ldots$
Next is the 'Five-Step $+2,+9,+5$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 2057613168724279835390946(5)...

Next is the 'Six-Step +1 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.
$502057613168724279835390946502057613168724279835390946(5) \ldots$
Next is the 'Seven-Step $+6,+2,+9$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 $2057613168724279835390946502057613168724279835390946502057613168724279835390946(5) \ldots$

Next is the 'Eight-Step $+7,+5,+1$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

Next is the 'Nine-Step +6 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.

```
502057613168724279835390946(5)...
```

Next is the 'Ten-Step $+2,+7,+5$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

```
50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 \(57613168724279835390946502057613168724279835390946(5) \ldots\)
```

Next is the 'Eleven-Step $+3,+1,+6$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below. (This 'Progressive Pattern' contains a sub-pattern which will be explained in the endnotes of this sub-chapter.)

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 $57613168724279835390946502057613168724279835390946502057613168724279835390946(5) \ldots$

Next is the 'Twelve-Step +2 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves two of each kind of Shock, as is shown below.
$502057613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946(5) \ldots$
Next is the 'Thirteen-Step $+7,+3,+1$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 613168724279835390946(5)...

Next is the 'Fourteen-Step $+8,+6,+2$ Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

```
50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 \(613168724279835390946502057613168724279835390946(5) \ldots\)
```

Next is the 'Fifteen-Step +7 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves two of each kind of Shock, as is shown below.

```
50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650
``` 2057613168724279835390946(5)...

Next is the 'Sixteen-Step \(+3,+8,+6\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

Next is the 'Seventeen-Step \(+4,+2,+7\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

\begin{abstract}
50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 61316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650205761 3168724279835390946(5)...
\end{abstract}

Next is the 'Eighteen-Step +3 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.
\(502057613168724279835390946502057613168724279835390946(5) \ldots\)
Next is the 'Nineteen-Step \(+8,+4,+2\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below. (This 'Progressive Pattern' contains a sub-pattern which will be explained in the endnotes of this sub-chapter.)

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 61316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650205761 \(3168724279835390946502057613168724279835390946502057613168724279835390946(5) \ldots\)

Next is the 'Twenty-Step \(+9,+7,+3\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 61316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650205761 \(3168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946(5) \ldots\)

Next is the 'Twenty-One-Step +8 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 \(2057613168724279835390946502057613168724279835390946502057613168724279835390946(5) \ldots\)

Next is the 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below. (This 'Progressive Pattern' contains a sub-pattern which will be explained in the endnotes of this sub-chapter.)

\footnotetext{
50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 61316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650205761 31687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020576131 \(68724279835390946502057613168724279835390946(5) \ldots\)
}

Next is the 'Twenty-Three-Step \(+5,+3,+8\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves eight of each kind of Shock, as is shown below.

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 61316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650205761 31687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020576131 \(68724279835390946502057613168724279835390946502057613168724279835390946(5) \ldots\)

Next is the 'Twenty-Four-Step +4 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves four of each kind of Shock, as is shown below.

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 2057613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946(5)...

Next is the 'Twenty-Five-Step \(+9,+5,+3\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves seven of each kind of Shock, as is shown below.

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 61316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650205761 31687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020576131 68724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057613168 724279835390946(5)...

Next is the 'Twenty-Six-Step \(+1,+8,+4\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves ten of each kind of Shock, as is shown below.
```

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650 20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020 57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057 61316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650205761 31687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020576131 68724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057613168 $724279835390946502057613168724279835390946(5) \ldots$

```

Next is the 'Twenty-Seven-Step +/-9/0 Progressive Pattern' which is contained within this same 'Repetition Pattern', with this being the 'No Change Progressive Pattern' which which separates the Cycles of the 'Progressive Pattern Set'.

That completes this list of the twenty-seven individual 'Progressive Patterns' which comprise the first Cycle of this 'Progressive Pattern Set'.

Next, we will list the values of change of these twenty-seven 'Progressive Patterns', along with the Quantities of Shocks which they contain, all of which is shown below (with arbitrary highlighting which is explained below the chart).
\begin{tabular}{ccc} 
steps & values of change & equal Shocks \\
1 & \(5,1,8(5)\) & 10 \\
2 & \(6,4,9(1)\) & 7 \\
3 & 5 & 4 \\
4 & \(1,6,4(2)\) & 8 \\
5 & \(2,9,5(7)\) & 8 \\
6 & 1 & 1 \\
7 & \(6,2,9(8)\) & 8 \\
8 & \(7,5,1(4)\) & 8 \\
9 & 6 & 1 \\
10 & \(2,7,5(5)\) & 8 \\
11 & \(3,1,6(1)\) & 8 \\
12 & 2 & 2 \\
13 & \(7,3,1(2)\) & 8 \\
14 & \(8,6,2(7)\) & 8 \\
15 & 7 & 2 \\
16 & \(3,8,6(8)\) & 8 \\
17 & \(4,2,7(4)\) & 8 \\
18 & 3 & 1 \\
19 & \(8,4,2(5)\) & 8 \\
20 & \(9,7,3(1)\) & 8 \\
21 & 8 & 1 \\
22 & \(4,9,7(2)\) & 8 \\
23 & \(5,3,8(7)\) & 8 \\
24 & 4 & 4 \\
25 & \(9,5,3(8)\) & 7 \\
26 & \(1,8,4(4)\) & 10 \\
27 & 9 & 0
\end{tabular}

Above, we can see that the concentric condensed sums of the single and multiple values of change which are contained within the values of change column display 'Sibling Mirroring' between one another, all of which is highlighted in red and green. Also, we can see that the Numbers which are contained within the equal Shocks column display a concentric form of Matching, which is highlighted in green and red.

The three vertical columns which are seen above Add to the sums which are shown below (the various qualities of the 'No Change Progressive Pattern' are not included in these totals). (The non-condensed sum which is yielded by the changes column involves the non-condensed sum which is yielded by the condensed values of the single and multiple changes in value.)
\begin{tabular}{lr} 
steps - & \(351(9)\) \\
changes - & \(117(9)\) \\
total Shocks - & \(324(9)\) \\
equal Shocks - & \(162(9)\)
\end{tabular}

Above, we can see that all of these sums condense to the 9 , including that of the previously ignored total Shocks column.

While if we Divide the total Quantity of Shocks which are involved 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 \(12.461538 \ldots\) Shocks (in that " \(324 / 26=12.461538 \ldots .\). "). The 'Repetition Pattern' of this Average condenses to the 9 , as was the case in relation to the 'Repetition Pattern' of the Average Quantity of Shocks which are involved in each of the individual 'Progressive Patterns' which are contained in 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 fifth iteration of the Function of "1/6" (which was examined in "Chapter 6.3"). (In that case, the 'Whole Number' part of the Average involved the 9 , which is a member of the '3,6,9 Family Group', while in this case, the 'Whole Number' part of this Average (this being 12) condenses to the 3, with this condensed value also being a member of the '3,6,9 Family Group'.)

Also, the 'Repetition Pattern' of this Average contains a 'Progressive Pattern' which involves one step to the right, and a patterned flipping of changes in value between the ' \(3 / 6\) Sibling/Cousins', as is shown below (with the individual changes in value shown above the 'Progressive Pattern'). (This behavior is similar to that which is displayed by the 'Repetition Pattern' of the Average Quantity of Shocks which are involved in each of the individual 'Progressive Patterns' which are contained in 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 fifth iteration of the Function of " \(1 / 6\) ", which contains a similar 'Progressive Pattern' which involves the '2/7 Siblings', as was seen in "Chapter 6.3".)
\[
\begin{gathered}
333666 \\
.461538(4) \ldots
\end{gathered}
\]

Above, we can see that this 'Repetition Pattern' contains a 'One-Step \(+3,+3,+3,+6,+6,+6\) Progressive Pattern' which involves three of each kind of Shock, with these Shocks involving a "+,,+,+, -,-,-,..." 'Shock Pattern'.

Next, we will examine the true 'Cross Numbers' which are contained within the steps and changes columns of the chart which is seen on the previous page, of which, a representative sample is shown below. (This representative sample involves the first concentric set of four diametrically opposed condensed values which are contained within the steps and changes columns, with these two pairs of Numbers being shown through each of the 'Four Functions'.)
\begin{tabular}{ccccc}
\(\mathbf{1 , 4 / 5 , 8}\) & "X" Match & "+" Siblings & \("-"\) Match & "/" Cousins \\
& \(1 \mathrm{X} 4=4(4)\) & \(1+4=5(5)\) & \(1-4=-3(6)\) & \(1 / 4=.25(7)\) \\
& \(5 \mathrm{X} 8=40(4)\) & \(5+8=13(4)\) & \(5-8=-3(6)\) & \(5 / 8=.625(4)\)
\end{tabular}

Above, we can see that these two pairs of 'Cross Numbers' yield condensed solutions which display Matching between one another in relation to the non-Related Functions of Multiplication and Subtraction (with these two instances of Matching being highlighted arbitrarily in green and blue, respectively). While these same two pairs of 'Cross Numbers' yield condensed solutions which display 'Sibling Mirroring' between one another in relation to the 'Addition Function' (as is highlighted in red), and 'Cousin Mirroring' between one another in relation to the 'Division Function' (as is highlighted in purple). (Also, in this example, the Functions which yield non-condensed and condensed solutions
which involve '3,6,9 Family Group' members are relegated to the third column, as they usually are in these 'Cross Number' examples, as was seen in "Chapter 6.3".)

Next, we will examine the vertical and diagonal sub-patterns which are displayed by the values of change and equal Shocks columns of the chart which is seen above (on a previous page). (In this case, 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 equal Shocks column involves two intertwined sub-patterns which are also highlighted in arbitrary colors which are explained below the chart). (These sub-patterns are similar to those which are displayed by the values of change and equal Shocks columns of the chart of the twenty-seven-member 'Progressive Pattern Set' which was examined in "Chapter 6.3".)
\begin{tabular}{cccc} 
steps & values of change & equal Shocks \\
1 & 5 & 18 & 10 \\
2 & 6 & 49 & 7 \\
3 & 5 & & 4 \\
4 & 1 & 64 & 8 \\
5 & 2 & 95 & 8 \\
6 & 1 & & 1 \\
7 & 6 & 29 & 8 \\
8 & 7 & 51 & 8 \\
9 & 6 & & 1 \\
10 & 2 & 75 & 8 \\
11 & 3 & 16 & 8 \\
12 & 2 & & 2 \\
13 & 7 & 31 & 8 \\
14 & 8 & 62 & 8 \\
15 & 7 & & 2 \\
16 & 3 & 86 & 8 \\
17 & 4 & 27 & 8 \\
18 & 3 & & 1 \\
19 & 8 & 42 & 8 \\
20 & 9 & 73 & 8 \\
21 & 8 & & 1 \\
22 & 4 & 97 & 8 \\
23 & 5 & 38 & 8 \\
24 & 4 & & 7 \\
25 & 9 & 53 & 84 \\
26 & 1 & 84 & 9
\end{tabular}

Above, we can see that the leftmost of the three individual value of change columns displays two intertwined sub-patterns, with the Number groups of \(5,6,5,6,7,6,7,8,7,8,9,8\), and \(9,1,9\) (all of which are highlighted in red) constituting the first of these sub-patterns, and the Number groups of \(1,2,1\),

2,3,2, 3,4,3, and 4,5,4 (all of which are highlighted in green) constituting the second of these subpatterns. These nine three-digit groups of Numbers all consist of one Number, followed by a Number which is 1 Greater than the first Number, followed by the original Number, with these groups of three Numbers raising by 1 on each step (which means that the Matching concentric Numbers of these sets carry out through one complete 'Base Set', as do the center Numbers). Next, the squares of Numbers which are oriented to the right of the previous column display two orientationally Mirrored diagonal sub-patterns, which are highlighted in green and red. First, running from top-left to bottom-right, are the Number pairs of \(1,9,6,5,2,1,7,6,3,2,8,7,4,3,9,8\), and 5,4 , all of which are highlighted in green. The Numbers which comprise each of these pairs raise by 5 on each step (which means that these Numbers display a unique form of a ' +5 Growth Pattern'), with this behavior carrying on through two complete iterations of the 'Base Set'. Next, running from top-right to bottom-left, are the Number pairs of \(8,4,4,9,9,5,5,1,1,6,6,2,2,7,7,3\), and 3,8 , all of which are highlighted in red. As was the case in relation to the previous diagonal sub-pattern, the Numbers which comprise each of these pairs display a ' +5 Growth Pattern', which again carries on through two complete iterations of the 'Base Set'. (Technically, the first of these ' +5 Growth Patterns' could be considered to be a ' +8 Growth Pattern' intertwined with a ' +6 Growth Pattern' (with the addends of 8 and 6 Adding to the condensed 5), while the second of these ' +5 Growth Patterns' could be considered to be a ' +5 Growth Pattern' intertwined with a ' \(+9 / 0\) Growth Pattern' (with the addends of 5 and 9 Adding to the condensed 5). Though for simplicity, we are going to consider both of these sub-patterns to involve a unique form of a ' +5 Growth Pattern'.)

While the equal Shocks column displays two intertwined sub-patterns, each of which displays a palindromic form of 'Self-Mirroring'. The green pairs of (vertically) Neighboring Numbers which are contained within this column display the sub-pattern of \(10,7,8,8,8,8,8,8,8,8,8,8,8,8,8,8,7,10\), while the red Numbers which separate the pairs of green Numbers display the sub-pattern of \(4,1,1,2,2,1,1,4\), with each of these sub-patterns displaying a palindromic form of 'Self-Mirroring', as is highlighted arbitrarily here: \(10,7,8,8,8,8,8,8,8,8,8,8,8,8,8,8,7,10\) and \(4,1,1,2,2,1,1,4\).
*********

In this section, we will examine the 'Progressive Patterns' which are contained within the 'Repetition Patterns' of the differences between the Averages which were examined in the previous few sections, as is explained below. (For the remainder of this sub-chapter, we will be working with the previously established Averages, which is due to the fact that the 'Progressive Pattern Set' of the Average of the constituent Numbers of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the eighth iteration of the Function of "1/6" contains eighty-one separate 'Progressive Patterns', and is therefore far to complex to be included in this subchapter.) In order to determine these differences, we will simply Subtract one of these Averages from the other (for example, that of the third iteration from that of the fourth iteration, that of the fourth iteration from that of the fifth iteration, etc.), as is shown and explained below.

We will start by Subtracting the Average of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the third iteration of the Function of " \(1 / 6\) " from that 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 " \(1 / 6\) ", as is shown below. (We are starting with the third and fourth iterations of the Function of " \(1 / 6\) ", which is due to the
fact that the Averages of the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the first two iterations of the Function of " \(1 / 6\) " both involve single-digit values which display Matching in relation to the single-digits which comprise the 'Repetition Patterns' from which they are yielded, as was explained earlier in this sub-chapter.)
\[
\begin{gathered}
17 / 3=5.6 \ldots \\
40 / 9=4.4 \ldots \\
\text { and } \\
5.6 \ldots-4.4 \ldots=1.2 \ldots
\end{gathered}
\]

Above, we can see that Subtracting the Average of 4.4... from the Average of 5.6... yields an 'Infinitely Repeating Decimal Number' difference which contains a simple, single-digit 'Repetition Pattern'. (The simple method of Subtraction which is seen above will be used to determine all of the rest of the differences which will be examined in this section.)

Next, we will Subtract the Average of '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" from that of 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 below. (For the remainder of this section, the 'Repetition Patterns' of the differences will only be shown through one non-highlighted iteration, as is the case below.)
\[
\begin{gathered}
40 / 9=4.444 \ldots \\
119 / 27=4.407 \ldots \\
\text { and } \\
4.444 \ldots-4.407 \ldots=.037 \ldots
\end{gathered}
\]

Above, we can see that this difference contains a familiar three-digit 'Repetition Pattern' which consists of the Numbers 0,3 , and 7 . This \(037 \ldots\)..Repetition Pattern' has been seen in a few of the previous chapters, where we have already established that it contains a relatively small 'Progressive Pattern Set' which consists of a 'One-Step +3 Progressive Pattern' along with a 'Two-Step +6 Progressive Pattern' (with the third step involving the 'No Change Progressive Pattern' which separates the Cycles of the 'Progressive Pattern Sets'). This 'Progressive Pattern Set' displays a form of 'Sibling Mirroring' in relation to the 'Progressive Pattern Set' which is contained within the \(407 . .\). 'Repetition Pattern' which was examined earlier in this sub-chapter, in that the 'Progressive Pattern Set' which is contained within the 407... 'Repetition Pattern' consists of a 'One-Step +6 Progressive Pattern' along with a 'Two-Step +3 Progressive Pattern'. (These two 'Progressive Pattern Sets' display a form of 'Sibling/Cousin Mirroring' between one another, in that 'One-Step +6 ' and 'One-Step +3 ' displays 'Sibling/Cousin Mirroring' in relation to 'Two-Step +3 ' and 'Two-Step +6 '.) This form of 'Sibling/Cousin Mirroring' is likely due to the fact that the difference of \(.037 \ldots\) is yielded (in this case) from the subtrahend of \(.407 \ldots\), in that ". \(444 \ldots\)... . \(407 \ldots=\)... \(037 \ldots\)...".)

Next, we will Subtract the Average of 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" from that of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the sixth iteration of the Function of " \(1 / 6\) ", as is shown below.
\[
\begin{gathered}
361 / 81=4.456790123 \ldots \\
119 / 27=4.407407407 \ldots \\
\text { and } \\
4.456790123 \ldots-4.407407407 \ldots=. .049382716 \ldots
\end{gathered}
\]

Above, we can see that this 'Infinitely Repeating Decimal Number' difference contains a nine-digit 'Repetition Pattern' which contains nine unique 'Progressive Patterns', all of which are listed below, followed by a chart of their individual values of change and Quantities of Shocks. (Also, this 'Repetition Pattern' involves a Quantity of digits which is three times Greater than the Quantity of digits which is contained within the previous 'Repetition Pattern', which indicates that the Quantities of digits which are contained within these 'Repetition Patterns' display an 'X3 Growth Pattern', as do the Quantities of digits which are contained within the 'Repetition Patterns' of the Averages from which they are yielded.)

First is the 'One-Step +4 Progressive Pattern' which is contained within this 'Repetition Pattern', which involves four of each kind of Shock, as is shown below.

049382716(0)...
Next is the 'Two-Step +8 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.

049382716049382716(0)...
Next is the 'Three-Step +3 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.

049382716(0)...
Next is the 'Four-Step +7 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves two of each kind of Shock, as is shown below.
\(049382716049382716049382716049382716(0)\)...
Next is the 'Five-Step +2 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves two of each kind of Shock, as is shown below. \(049382716049382716049382716049382716049382716(0) \ldots\)

Next is the 'Six-Step +6 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.

049382716049382716(0)...
Next is the 'Seven-Step +1 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.
\(049382716049382716049382716049382716049382716049382716049382716(0) \ldots\)
Next is the 'Eight-Step +5 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves four of each kind of Shock, as is shown below.

Next is the 'Nine-Step +/-9/0 Progressive Pattern' which is contained within this same 'Repetition Pattern', with this being the 'No Change Progressive Pattern' which which separates the Cycles of the 'Progressive Pattern Set'.

Next, we will list the values of change of the nine 'Progressive Patterns' which are contained in this 'Progressive Pattern Set', along with the Quantities of Shocks which they contain, all of which is shown below (with arbitrary highlighting which is explained below the chart).
\begin{tabular}{ccc} 
steps & values of change & equal Shocks \\
1 & 4 & 4 \\
2 & 8 & 1 \\
3 & 3 & 1 \\
4 & 7 & 2 \\
5 & 2 & 2 \\
6 & 6 & 1 \\
7 & 1 & 1 \\
8 & 5 & 4 \\
9 & 0 & 0
\end{tabular}

Above, we can see that the steps and changes columns each display a unique form of concentric 'Sibling Mirroring', while the equal Shocks column displays a concentric form of Matching, all of which is highlighted in arbitrary colors. Also, the steps and changes columns display an overall form of 'Family Group Matching' between one another, in that the horizontally aligned pairs of Numbers which are contained within these columns (these being \(1 / 4,2 / 8,3 / 3,4 / 7,5 / 2,6 / 6,7 / 1\), and \(8 / 5\) ) all share the same Family Group (individually).

Next, we will Subtract the Average of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the sixth iteration of the Function of "1/6" from that of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the seventh iteration of the Function of " \(1 / 6\) ", as is shown below.
\[
\begin{aligned}
1094 / 243 & =4.502057613168724279835390946 \ldots \\
361 / 81 & =4.456790123456790123456790123 \ldots
\end{aligned}
\]
these two Averages Subtract to a difference of:
. \(045267489711934156378600823 \ldots\)
Above, we can see that this 'Infinitely Repeating Decimal Number' difference contains a twenty-seven digit 'Repetition Pattern', with this 'Quantity Of Twenty-Seven' confirming the 'X3 Growth Pattern' which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns' (in that "9X3=27"). This 'Quantity Of Twenty-Seven' also indicates that this particular 'Progressive Pattern Set' contains twenty-seven unique 'Progressive Patterns' (including the 'No Change Progressive Pattern' which separates the Cycles of the 'Progressive Pattern Set'). Though rather than examine another twenty-seven 'Progressive Patterns', we will simply examine the first three of these 'Progressive Patterns', as is shown below.

First is the 'One-Step \(+4,+9,+7\) Progressive Pattern' which is contained within this 'Repetition Pattern', which involves nine of each kind of Shock, as is shown below. (This 'Progressive Pattern' contains a sub-pattern which will be examined in the endnotes of this sub-chapter.)
\(045267489711934156378600823(0) .\).
Next is the 'Two-Step \(+4,+1,+8\) Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves seven of each kind of Shock, as is shown below.
\(045267489711934156378600823045267489711934156378600823(0) \ldots\)
Next is the 'Three-Step +2 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves two of each kind of Shock, as is shown below.

045267489711934156378600823(0)...
Above, we can see that these 'Progressive Patterns' display the familiar characteristic of three separate (repeating) values of change (with the 'Progressive Patterns' which involve steps which are 'Multiples Of The 3 ' involving a single value of change, as has been the case previously). Also, these 'Progressive Patterns' all involve a 'Shock Pattern' of "+,-,...", as was the case in relation to the 'Progressive Patterns' which are contained within the 'Infinitely Repeating Decimal Number' difference which was examined a moment ago (though we did not bother to note it at the time).

Next, we will Subtract the Average of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the seventh iteration of the Function of "1/6" from that of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the eighth iteration of the Function of " \(1 / 6\) ", as is shown below.
\(3283 / 729=4.50342935528120713305898491083676268861454046639231824417009602194787379\) 9725651577...
and
\(1094 / 243=4.502057613168724279835390946 \ldots\)
these two Averages Subtract to a difference of:
. \(001371742112507133058984910836762688614540466392318244170096021947873799725651577 \ldots\)
Above, we can see that this 'Infinitely Repeating Decimal Number' difference contains an eighty-one digit 'Repetition Pattern' with this 'Quantity Of Eighty-One' maintaining the 'X3 Growth Pattern' which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns' (in that " \(9 \mathrm{X} 27=81\) "). We will address this 'Repetition Pattern' in a moment, along with that which is contained within the next 'Infinitely Repeating Decimal Number' difference.

Next, we will Subtract the Average of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the eighth iteration of the Function of " \(1 / 6\) " from that of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the ninth iteration of the Function of " \(1 / 6\) ", as is shown below.
these two Averages Subtract to a difference of:
. 0018289894833104709647919524462734339277549154092363968907178783721993598536808413 35162322816643804298125285779606767261088248742569730224051211705532693187014174668 49565614997713 \(7631458619112940100594421582075903063557384545038866026520347508 \ldots\)

Above, we can see that this 'Infinitely Repeating Decimal Number' difference contains a two hundred and forty-three-digit 'Repetition Pattern', with this 'Quantity Of Two Hundred and Forty-Three' maintaining the 'X3 Growth Pattern' which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns' (in that "9X81=243"). (Technically, this Function yields a 'Negative Base Charged' difference, which is due to the fact that the subtrahend is Greater than the minuend. Though in this case, the Subtraction Function' has been performed with the subtrahend and the minuend reversed, in order to yield a Numerically Matching 'Positive Base Charged' difference, as has been the case throughout previous chapters.)

These last two examples contain 'Repetition Patterns' which contain 'Progressive Pattern Sets' which are much more complex than those which we have seen so far (in that they contain eighty-one and two hundred and forty-three individual 'Progressive Patterns', respectively). Therefore, we will not be able to examine either of these 'Repetition Patterns' in this (or any other) sub-chapter.

\section*{\(* * * * * * * * *\)}

Next, we will examine another of the sub-patterns which are displayed by these Averages, with this particular sub-pattern involving a familiar form of an 'X3 Growth Pattern' variant. In "Chapter 6", we examined an 'X3 Growth Pattern' variant which involves the repeating variations of " \(-11,-1,+4,+11,+1\), \(-4, \ldots\). (with this 'X3 Growth Pattern' variant having been displayed by the non-condensed values of the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the iterations of the Function of " \(1 / 6\) "). As was explained in "Chapter 6", these six individual variations involve two repetitions of the same three-step pattern (this being \(11,1,4, \ldots\) ), with the Charges reversed at the halfway point, and with these two repetitions comprising one complete Cycle of these variations.

In this section, we will examine the same Averages which we have been working with throughout this sub-chapter, though in this case, we will focus on the fact that the non-condensed values of their 'Repetition Patterns' display a Shifted variation on this " \(-11,-1,+4,+11,+1,-4, \ldots\) " pattern, all of which is shown and explained below. (This 'X3 Growth Pattern' variant begins on the second of the Averages of the multiple-digit 'Repetition Patterns'. Though this is a familiar characteristic, in that many of the subpatterns which have been seen throughout this book have involved the characteristic which involves the skipping of the first step in a progression of Numbers.)

This 'X3 Growth Pattern' variant begins with the Average of 4.4..., with this Average containing a single-digit 'Repetition Pattern' which possesses a non-condensed value of 4. In order to establish this 'X3 Growth Pattern' variant, we will Multiply this non-condensed value of 4 by an assumed 3, which will yield the product of 12 (as " \(4 \mathrm{X} 3=12\) ").

Next is the Average of \(4.407 \ldots\), with this Average containing a 'Repetition Pattern' which Adds to a noncondensed sum of 11 . This non-condensed sum of 11 is 1 Lesser than the product of 12 which is yielded by Multiplying the previous non-condensed sum by the 3 , with this flaw giving us the variation of "-1".

Next is the Average of 4.456790123, with this Average containing a 'Repetition Pattern' which Adds to a non-condensed sum of 37 . This non-condensed sum of 37 is 4 Greater than the product of 33 which is yielded by Multiplying the previous non-condensed sum by the 3, with this flaw giving us the variation of "+4".

Next is the Average of 4.502057613168724279835390946 , with this Average containing a 'Repetition Pattern' which Adds to a non-condensed sum of 122 . This non-condensed sum of 122 is 11 Greater than the product of 111 which is yielded by Multiplying the previous non-condensed sum by the 3, with this flaw giving us the variation of " +11 ".

These three variations complete one half of one Cycle of this 'X3 Growth Pattern' variant. The first half of this current 'X3 Growth Pattern' variant involves the individual variations of " -1 ", "+4", and "+11", with these three variations appearing to display a form of 'Weak Mirroring' in relation to those which comprise the first half of the previous 'X3 Growth Pattern' variant (these being "-1", "+4", and "-11"). (This form of 'Weak Mirroring' involves the fact that in relation to the previous 'X3 Growth Pattern' variant, the variations of 1 and 11 both involve the same Charge, though in relation to this 'X3 Growth Pattern' variant, the variations of 4 and 11 both involve the same Charge.) However, this apparent form of 'Weak Mirroring' is due to the fact that this 'X3 Growth Pattern' variant is Shifted (in relation to the previous 'X3 Growth Pattern' variant), as will be explained in a moment.

Next is the Average of 4.503429355281207133058984910836762688614540466392318244170096021 \(947873799725651577 . .\). , with this Average containing a 'Repetition Pattern' which Adds to a noncondensed sum of 367 . This non-condensed sum of 367 is 1 Greater than the product of 366 which is yielded by Multiplying the previous non-condensed sum by the 3 , with this flaw giving us the variation of "+1".

Next is the Average of 4.501600365797896662094192958390489254686785550983081847279378143 57567443987197073616826703246456332876085962505715592135345221764974851394604481024 23411065386374028349336991312299954275262917238225880201188843164151806127114769090 \(07773205304069 \ldots\), with this Average containing a 'Repetition Pattern' which Adds to a non-condensed sum of 1097. This non-condensed sum of 1097 is 4 Lesser than the product of 1101 which is yielded by Multiplying the previous non-condensed value by the 3, with this flaw giving us the variation of "-4".

Unfortunately, we cannot track this 'X3 Growth Pattern' variant through any more Averages, due to my technological limitations, as was explained in the previous section. Though even with just the five individual variations which we have determined in this section, we can determine that this 'X3 Growth Pattern' variant most likely displays 'Shifted Matching' in relation to the previous 'X3 Growth Pattern'
variant, as is shown below, with this new 'X3 Growth Pattern' variant shown above the previous 'X3 Growth Pattern' variant, and with the current 'X3 Growth Pattern' variant Shifted one step to the right.
\[
\begin{gathered}
-1,+4,+11,+1,-4, ? ? ?, \ldots \\
-11,-1,+4,+11,+1,-4, \ldots
\end{gathered}
\]

Above, we can see that there is Matching displayed between all five of the vertically aligned pairs of variations, which means that this 'X3 Growth Pattern' variant likely displays 'Shifting Matching' in relation to the previous 'X3 Growth Pattern'. (These five instances of vertical Matching indicate that the missing variation (which is represented by the "???") would most likely display Matching in relation to the "-11" which is seen at the front of the bottommost 'X3 Growth Pattern' variant.) Though it should be noted that this form of 'Shifted Matching' is due to the fact that the original (bottommost) variant pattern begins with the non-condensed value of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the third iteration of the Function of " \(1 / 6\) ", while the top (Shifted) variant pattern begins with the non-condensed value of the 'Repetition Pattern' which is contained within the Average 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 " \(1 / 6\) ".

The mechanism which is causing the Matching behavior which is explained above will not be covered in this book, though it has to do with the Quality and the Quantity of a 'Repetition Pattern'. (To clarify, the Quality of a 'Repetition Pattern' is the non-condensed sum of its constituent Numbers, while the Quantity of a 'Repetition Pattern' is simply the Quantity of digits which it contains. Though these forms of Quality and Quantity are slightly different concepts from those which were seen in "Chapter One", as the concepts which were examined in that chapter involved the Quantity of Matching condensed values (Qualities) of non-repeating 'Decimal Numbers'.)
\(* * * * * * * * *\)

Next, we will examine a few of the Averages of the constituent Numbers of the 'Repetition Patterns' which are contained within the Averages which we have been working with throughout the previous sections, all of which are shown and explained below. (Throughout this section, we will be disregarding the 'Whole Number' parts of these Averages, and focusing solely on their 'Repetition Patterns'.)

The first of these Averages of the Averages involves a 'Whole Number' which is not followed by a 'Repetition Pattern', and the next two of these Averages of the Averages involve 'Infinitely Repeating Decimal Numbers' which contain single-digit 'Repetition Patterns' which contain no 'Progressive Patterns'. Therefore, we will just list these three Averages of the Averages below, and then move on to the more complex Averages of the Averages.


Next, we will examine the Average of the fourth of these Averages, which is shown below.
\[
\begin{array}{cc}
\text { Average } & \text { Average of the Average } \\
4.502057613168724279835390946 \ldots & 4.518 \ldots
\end{array}
\]

Above, we can see that the Average of the fourth of these Averages contains a three-digit 'Repetition Pattern', with this 'Quantity Of Three' indicating that this 'Repetition Pattern' contains three unique 'Progressive Patterns' (including the 'No Change Progressive Pattern'), all of which are shown below.

First is the 'One-Step +6 Progressive Pattern' which is contained within this 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.
5185...

Next is the 'Two-Step +3 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, as is shown below.
5185185...

Above, we can see that these two 'Progressive Patterns' display a form of 'Sibling/Cousin Mirroring' between one another, in that their values of change involve the members of the ' \(3 / 6\) Sibling/Cousins'. Also, we can see that both of these 'Progressive Patterns' maintain 'Shock Parity', and involve a 'Shock Pattern' of "-,,+,..". (While the 'Three-Step Progressive Pattern' which is contained within this 'Repetition Pattern' is the 'No Change Progressive Pattern' which separates the Cycles of the 'Progressive Pattern Set'.)

Next, we will examine the Average of the fifth of these Averages, which is shown below.

\section*{Average}
4.503429355281207133058984910836762688614540466392318244170096021947873799725651577...

\section*{Average of the Average}
4.530864197...

Above, we can see that the Average of the fifth of these Averages contains a nine-digit 'Repetition Pattern', with this 'Quantity Of Nine' indicating that this 'Repetition Pattern' contains nine unique 'Progressive Patterns', all of which are shown below. (These nine 'Progressive Patterns' will be followed by a chart which contains (in addition to the usual qualities) a list of the Quantities of the non-Shocked Numbers which are contained within each of the individual 'Progressive Patterns', as well as a list of the individual Numbers which are skipped over by each of these 'Progressive Patterns', with these being two qualities which we have not examined in relation to any of the 'Progressive Pattern Sets' which we have worked with up to this point.)

First is the 'One-Step +7 Progressive Pattern' which is contained within this 'Repetition Pattern', which involves two of each kind of Shock, along with five non-Shocked Numbers, as is shown below. (This 'Progressive Pattern' does not skip over any Numbers, due to its being a 'One-Step Progressive Pattern'. Also, the first Number in each of these 'Progressive Patterns' is only highlighted in blue to indicate it as the starting point of its 'Progressive Pattern', which means that these blue Numbers do not necessarily count as non-Shocked Numbers, as has been explained previously.)

Next is the 'Two-Step +5 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves two of each kind of Shock, five non-Shocked Numbers, and nine skipped Numbers, as is shown below.

530864197530864197(5)...
Next is the 'Three-Step +3 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, one non-Shocked Number, and six skipped Numbers, as is shown below.

530864197(5)...
Next is the 'Four-Step +1 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, seven non-Shocked Numbers, and twenty-seven skipped Numbers, as is shown below.

530864197530864197530864197530864197(5)...
Next is the 'Five-Step +8 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, seven non-Shocked Numbers, and thirty-six skipped Numbers, as is shown below.

530864197530864197530864197530864197530864197(5)...
Next is the 'Six-Step +6 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves one of each kind of Shock, one non-Shocked Number, and fifteen skipped Numbers, as is shown below.

530864197530864197(5)...
Next is the 'Seven-Step +4 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves two of each kind of Shock, five non-Shocked Numbers, and fifty-four skipped Numbers, as is shown below.

530864197530864197530864197530864197530864197530864197530864197(5)...
Next is the 'Eight-Step +2 Progressive Pattern' which is contained within this same 'Repetition Pattern', which involves two of each kind of Shock, five non-Shocked Numbers, and sixty-three skipped Numbers, as is shown below.

530864197530864197530864197530864197530864197530864197530864197530864197(5)...
Next is the 'Nine-Step +/-9/0 Progressive Pattern' which is contained within this same 'Repetition Pattern', with this being the 'No Change Progressive Pattern' which separates the Cycles of the 'Progressive Pattern Set'.

Next, we will list the various qualities of the nine 'Progressive Patterns' which are contained in this 'Progressive Pattern Set', all of which is shown below (with arbitrary highlighting which is explained below the chart).
\begin{tabular}{ccccc} 
steps & values of change & equal Shocks & non-Shocked & skipped over \\
1 & 7 & 2 & 5 & 0 \\
2 & 5 & 2 & 5 & 9 \\
3 & 3 & 1 & 1 & 6 \\
4 & 1 & 1 & 7 & 27 \\
5 & 8 & 1 & 7 & 36 \\
6 & 6 & 1 & 1 & 15 \\
7 & 4 & 2 & 5 & 54 \\
8 & 2 & & 5 & 63 \\
9 & 0 & 0 & 1 & 8
\end{tabular}

Above, we can see that the steps column displays Natural concentric 'Sibling Mirroring' (with the concentric pairs of Siblings highlighted in various arbitrary colors), while the changes column displays an alternate form of concentric 'Sibling Mirroring', which is also highlighted in various arbitrary colors. Also, we can see that there is a horizontal form of 'Family Group Matching' displayed between these two columns, in that all of the horizontally aligned pairs of Numbers (these being \(1 / 7,2 / 5,3 / 3,4 / 1,5 / 8\), \(6 / 6,7 / 4\), and \(8 / 2\) ) involve members of the same Family Group (individually).

Also, the changes column involves an orientationally 'Self-Mirrored' '1,2,4,8,7,5 Core Group', along with an instance of the ' \(3 / 6\) Sibling/Cousins', as is shown below. (The horizontal row of Numbers which is shown below is the vertical values of change column which is contained in the chart which is seen above, with these Numbers involving an alternate form of arbitrary highlighting which is explained below.)
\[
7,5,3,1,8,6,4,2
\]

Above, we can see that the first half of the '1,2,4,8,7,5 Core Group' is highlighted in red, and involves the 1 which is oriented in the center of the row of Numbers, the 2 which is oriented four steps to the right of the 1 , and the 4 which is oriented one step to the left of the 2 . While the second half of the '1,2,4,8,7,5 Core Group' is highlighted in green, and involves the 8 which is oriented in the center of the row of Numbers, the 7 which is oriented four steps to the left of the 8 , and the 5 which is oriented one step to the right of the 7. (These two intertwined halves display a form of orientational Mirroring between one another, as do the '3/6 Sibling/Cousins' which separate them.)

Next (getting back to the chart which is shown on the previous page), we can see that most of the individual Quantities of skipped Numbers condense to the 9 , with the exception of the Quantities of 6 and 15 , each of which condenses to the 6 (with the non-condensed sums which condense to the 9 highlighted in red, and those which condense to the 6 highlighted in blue). Also, we can see that the equal Shock column displays a concentric form of Matching, as does the column of non-Shocked Numbers (with both of these cases of concentric Matching highlighted in various arbitrary colors).

The five columns which are contained within the chart which is shown above (on the previous page) Add to the non-condensed and condensed sums which are shown below. (The list which is shown below also contains the non-condensed and condensed sums of the previously ignored total Shocks column.)
\begin{tabular}{lll} 
steps & - & \(36(9)\) \\
changes & - & \(36(9)\) \\
total Shocks & \(-24(6)\) \\
equal Shocks & \(12(3)\) \\
non-Shocked & \(36(9)\) \\
skipped & \(-210(3)\)
\end{tabular}

Above, we can see that all of these condensed values maintain the '3,6,9 Family Group'.
Next, if we Double the individual Quantities which are contained within the equal Shocks column (in order to yield the individual Quantities of total Shocks), and then Add these Quantities to those which are contained within the non-Shocked Numbers columns and the skipped Numbers columns, we can determine the total Quantities of Numbers which are involved in each of these 'Progressive Patterns'. These Quantities, along with their condensed values, are listed below.
steps/totals
\(1-7(7)\)
\(2-16(7)\)
\(3-8(8)\)
\(4-35(8)\)
\(5-44(8)\)
\(6-17(8)\)
\(7-61(7)\)
\(8-70(7)\)

Above, we can see that the condensed values of the total Quantity of digits which are involved in each of these individual 'Progressive Patterns' display a concentric form of Matching, with this concentric form of Matching causing a palindromic form of Mirroring, which is highlighted arbitrarily in green and red. Also, these eight condensed values Add to a non-condensed sum of 60, while these eight noncondensed values Add to a non-condensed sum of 258 , with both of these non-condensed sums condensing to the 6 .

Finally, we will examine a chart which involves the first iteration of each of these individual 'Progressive Patterns' laid one beneath the other (with all of the Shocks highlighted in their usual colors). This chart is shown below, with the bottommost horizontal row of Numbers containing the Quantities of colored Numbers which are contained within each of the vertical columns of the chart.
```

5308641975...
5308641975308641975...
5308641975...
5308641975308641975308641975308641975...
5308641975308641975308641975308641975308641975···..
5308641975308641975...
5308641975308641975308641975308641975308641975308641975308641975...
5308641975308641975308641975308641975308641975308641975308641975308641975···..

```
8122324242203021302021002100201020021000201001001100000020000001100000001

The bottommost row of Numbers which is contained within the chart which is seen above involves a 'Ripple Pattern', which in this case is displayed by the Quantity of colored Numbers which are contained within each of the vertical columns of the chart of the 'Progressive Pattern Set' of one of the differences between the Averages of two of the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the iterations of the Function of " \(1 / 6\) ". This particular 'Ripple Pattern' will be examined in "Chapter 6.6: 'Tossing Stones' ", as will the overall concept of 'Ripple Patterns'.

That brings this section, and therefore this sub-chapter to a close, as there is nothing to be gained at this point by examining the three remaining Averages of the Averages. While the endnotes of this subchapter are included below, with these endnotes involving an examination of a familiar form of subpattern which was mentioned earlier in this sub-chapter, and which was examined in the endnotes of "Chapter 6.3".

\section*{Endnotes}

In these endnotes, we will re-examine a few of the 'Progressive Patterns' which were examined in the main part of this sub-chapter, specifically those which reveal the Fractal quality of 'Progressive Patterns', with this Fractal quality having been seen in the endnotes of "Chapter 6.3".

We will start with the 'Eleven-Step \(+3,+1,+6\) Progressive Pattern' which is contained within the 'Repetition Pattern' of the Average of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the seventh iteration of the Function of " \(1 / 6\) ", which is shown (again) below.
```

50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650
20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020
57613168724279835390946502057613168724279835390946502057613168724279835390946(5)···.

```

The example which is seen above is shown in a smaller font, which causes the 'Repetition Pattern' to align into horizontal rows of one hundred and ten digits, with these one hundred and ten-digithorizontal rows causing the colored Numbers which comprise this 'Eleven-Step \(+3,+1,+6\) Progressive Pattern' to align into ten vertical columns. (This is due to one hundred and ten digits being a Multiple of eleven steps, in that "110/11=10".) These ten vertical columns display the first instance of Fractally interrelated 'Progressive Patterns' which will be examined in these endnotes, as is shown and explained below.

First, we will strip away all of the non-highlighted columns, as well as the last two highlighted though incomplete columns, which will leave us with the eight vertical columns of colored Numbers which are shown below.

58969070
22933044
\(5266377(5)\)

The Numbers which are contained within the eight columns which are seen above are all highlighted in the same colors in which they are highlighted within the 'Repetition Pattern'. Below, we will strip away all of this highlighting, in order to highlight the various instances of 'Family Group Matching which are displayed between the condensed sums of the 'Cross Numbers' which are contained within the various squares of four Numbers which are contained within the Neighboring columns (with these forms of 'Family Group Matching' being similar to those which were seen in relation to the condensed sums which are yielded by the various instances of 'Cross Numbers' which were examined in the endnotes of "Chapter 6.3"). (The next seven examples all involve forms of 'Family Group Matching', and therefore involve a Family Group color code.)

First, the squares of four Numbers which are contained within the leftmost instance of Neighboring columns display 'Family Group Matching' between the condensed sums of their 'Cross Numbers', with this form of 'Family Group Matching' exclusively involving '1,4,7 Family Group' members, as is shown below.
\(58969070-(7)(1)\)
\(22933044-(4)(7)\)
\(5266377(5)-(4)(7)\)

Above, we can see that in relation to the leftmost instance of Neighboring columns, the topmost square of 'Cross Numbers' yields the condensed sums of 7 and 1 (in that " \(5+2=7\) " and " \(8+2=10(1)\) "), as is indicated in parentheses to the right of the columns. While the bottommost (overlapping) square of 'Cross Numbers' yields the condensed sums of 4 and 7 (in that " \(2+2=4\) " and " \(2+5=7\) "), as is indicated in parentheses to the right of the columns. Then there is the square of Numbers which involves the two digits which are oriented at the bottom of these rows (these being the 5 and the 2 ) and the two digits which are oriented at the top of these rows (these being the 5 and the 8 ). These 'Cross Numbers' yield the condensed sums of 4 and 7 (in that " \(5+8=13(4)\) " and " \(2+5=7\) "), as is indicated to the right of the columns. (These six condensed sums display a form of 'Family Group Matching' between one another, in that they all maintain the '1,4,7 Family Group'.)

Next, the squares of four Numbers which are contained within the next (overlapping) instance of Neighboring columns display a similar form of 'Family Group Matching' between the condensed sums of their 'Cross Numbers', as is shown below.
\[
\begin{aligned}
& 58969070-(8)(2) \\
& 22933044-(8)(2) \\
& 5266377(5)-(2)(5)
\end{aligned}
\]

Above, we can see that in relation to these two Neighboring columns, the topmost square of 'Cross Numbers' yields the condensed sums of 8 and 2 (in that " \(8+9=17(8)\) " and " \(9+2=11(2)\) "), as is indicated in parentheses to the right of the columns. While the bottommost (overlapping) square of 'Cross Numbers' yields the condensed sums of 8 and 2 (in that " \(2+6=8\) " and " \(9+2=11(2)\) "), as is indicated to the right of the columns. Then there is the square of Numbers which involves the two digits which are oriented at the bottom of these rows (these being the 2 and the 6 ) and the two digits which are oriented at the top of these rows (these being the 8 and the 9 ). These 'Cross Numbers' yield the condensed sums of 2 and 5 (in that " \(2+9=11(2)\) " and " \(6+8=14(5)\) "), as is indicated to the right of the columns. (These six condensed sums display a form of 'Family Group Matching' between one another, in that they all maintain the '2,5,8 Family Group'.)

Next, the squares of four Numbers which are contained within the next (overlapping) instance of Neighboring columns display a similar form of 'Family Group Matching' between the condensed sums of their 'Cross Numbers', as is shown below.
\[
\begin{aligned}
& 58969070-(3)(6) \\
& 22933044-(6)(9) \\
& 5266377(5)-(3)(6)
\end{aligned}
\]

Above, we can see that in relation to these two Neighboring columns, the topmost square of 'Cross Numbers' yields the condensed sums of 3 and 6 (in that " \(9+3=12(3)\) " and " \(6+9=15(6)\) "), as is indicated in parentheses to the right of the columns. While the bottommost (overlapping) square of 'Cross Numbers' yields the condensed sums of 6 and 9 (in that " \(9+6=15(6)\) " and " \(3+6=9\) "), as is indicated to the right of the columns. Then there is the square of Numbers which involves the two digits which are oriented at the bottom of these rows (these being two 6's) and the two digits which are oriented at the top of these rows (these being the 9 and the 6). These 'Cross Numbers' yield the condensed sums of 3 and 6 (in that " \(6+6=12(3)\) " and " \(6+9=15(6)\) "), as is indicated to the right of the columns. (These six condensed sums display a form of 'Family Group Matching' between one another, in that they all maintain the '3,6,9 Family Group'.)

Next, the squares of four Numbers which are contained within the next (overlapping) instance of Neighboring columns display a similar form of 'Family Group Matching' between the condensed sums of their 'Cross Numbers', as is shown below.
\[
\begin{aligned}
& 58969070-(9)(3) \\
& 22933044-(6)(9) \\
& 5266377(5)-(6)(9)
\end{aligned}
\]

Above, we can see that in relation to these two Neighboring columns, the topmost square of Cross Numbers' yields the condensed sums of 9 and 3 (in that " \(6+3=9\) " and " \(9+3=12(3)\) "), as is indicated in parentheses to the right of the columns. While the bottommost (overlapping) square of 'Cross Numbers' yields the condensed sums of 6 and 9 (in that " \(3+3=6\) " and " \(3+6=9\) "), as is indicated to the right of the columns. Then there is the square of Numbers which involves the two digits which are oriented at the bottom of these rows (these being the 6 and the 3) and the two digits which are oriented at the top of these rows (these being the 6 and the 9 ). These 'Cross Numbers' yield the condensed sums of 6 and 9 (in that " \(6+9=15(6)\) " and " \(3+6=9\) "), as is indicated to the right of the columns. (These six condensed sums display a form of 'Family Group Matching' between one another, in that they all maintain the '3,6,9 Family Group'.)

Next, the squares of four Numbers which are contained within the next (overlapping) instance of Neighboring columns display a similar form of 'Family Group Matching' between the condensed sums of their 'Cross Numbers', as is shown below.
\[
\begin{aligned}
& 58969070-(9)(3) \\
& 22933044-(9)(3) \\
& 5266377(5)-(3)(6)
\end{aligned}
\]

Above, we can see that in relation to these two Neighboring columns, the topmost square of 'Cross Numbers' yields the condensed sums of 9 and 3 (in that " \(9+0=9\) " and " \(0+3=3\) "), as is indicated in
parentheses to the right of the columns. While the bottommost (overlapping) square of 'Cross Numbers' also yields the condensed sums of 9 and 3 (in that " \(3+7=9\) " and " \(0+3=3\) "), as is indicated to the right of the columns. (In this case, the 7 is highlighted in green in the chart and the listed Function (this being " \(3+7=9\) ") due to the fact that this 7 involves a 'Positive Shock', in that it is 1 Greater than is required, and should instead be a 6.) Then there is the square of Numbers which involves the two digits which are oriented at the bottom of these rows (these being the 3 and the 7) and the two digits which are oriented at the top of these rows (these being the 9 and the 0 ). These 'Cross Numbers' yield the condensed sums of 3 and 6 (in that \(" 3+0=3 "\) and \(" 7+9=15(6) "\) ), as is indicated to the right of the columns (again, the same 7 involves the same 'Positive Shock', which is again indicated in green in the chart and the listed Function). (These six condensed sums display a form of 'Family Group Matching' between one another, in that they all maintain the '3,6,9 Family Group'.)

Next, the squares of four Numbers which are contained within the next (overlapping) instance of Neighboring columns display a similar form of 'Family Group Matching' between the condensed sums of their 'Cross Numbers', as is shown below.
\[
\begin{aligned}
& 58969070-(4)(7) \\
& 22933044-(7)(1) \\
& 5266377(5)-(4)(7)
\end{aligned}
\]

Above, we can see that in relation to these two Neighboring columns, the topmost square of 'Cross Numbers yields the condensed sums of 4 and 7 (in that " \(0+4=4\) " and " \(7+0=7\) "), as is indicated in parentheses to the right of the columns. While the bottommost (overlapping) square of 'Cross Numbers' yields the condensed sums of 7 and 1 (in that " \(0+7=7\) " and " \(4+7=10(1)\) "), as is indicated to the right of the columns. (The bottom-left 7 is highlighted arbitrarily in purple in the chart and the listed Function, which is due to the fact that this 7 involves a 'Positive Shock', in that it is 1 Greater than is required, and should instead be a 6.) Then there is the square of Numbers which involves the two digits which are oriented at the bottom of these rows (these being two 7's) and the two digits which are oriented at the top of these rows (these being the 0 and the 7). These 'Cross Numbers' yield the condensed sums of 4 and 7 (in that " \(7+7=13(4)\) " and \(" 7+0=7\) "), as is indicated to the right of the columns (again, the same 7 involves the same 'Positive Shock', which is again indicated in purple in the chart and the listed Function). (These six condensed sums display a form of 'Family Group Matching' between one another, in that they all maintain the '1,4,7 Family Group'.)

Next, the squares of four Numbers which are contained within the next (overlapping) instance of Neighboring columns display a similar form of 'Family Group Matching' between the condensed sums of their 'Cross Numbers', as is shown below.
\[
\begin{aligned}
& 58969070-(2)(5) \\
& 22933044-(8)(2) \\
& 5266377(5)-(8)(2)
\end{aligned}
\]

Above, we can see that in relation to these two Neighboring columns, the topmost square of 'Cross Numbers' yields the condensed sums of 2 and 5 (in that " \(7+4=11(2)\) " and " \(0+4=5\) "), as is indicated in parentheses to the right of the columns. (The top-right 0 is highlighted arbitrarily in purple in the chart and the listed Function, which is due to the fact that this 0 involves a 'Negative Shock', in that it is 1 Lesser than is required, and should instead be a 1.) While the bottommost (overlapping) square of
'Cross Numbers' yields the condensed sums of 8 and 2 (in that " \(4+5=8\) " and " \(4+7=11(2)\) "), as is indicated to the right of the columns. (The bottom-right 5 is highlighted arbitrarily in green in the chart and the listed Function, which is due to the fact that this 0 involves a 'Positive Shock', in that it is 1 Greater than is required, and should instead be a 4.) Then there is the square of Numbers which involves the two digits which are oriented at the bottom of these rows (these being the 7 and the 5) and the two digits which are oriented at the top of these rows (these being the 7 and the 0 ). These 'Cross Numbers' yield the condensed sums of 8 and 2 (in that " \(7+0=8\) " and " \(5+7=11(2)\) "), as is indicated to the right of the columns (in this case, the 5 and the 0 both involve their respective Shocks). (These six condensed sums display a form of 'Family Group Matching' between one another, in that they all maintain the '2,5,8 Family Group'.)

Next, we will align these eight vertical columns into one horizontal row of Numbers (which contains the eight vertical columns of Numbers, each running from top to bottom, one after the other), as is shown below (without any of the previous highlighting).
\[
525822996636933007747045 \ldots
\]

The row of Numbers which is seen above contains a complex 'Progressive Pattern' which involves values of change which exclusively maintain the '3,6,9 Family Group', as is shown below (with the values of change shown above the 'Progressive Pattern').
\[
\begin{gathered}
63339696963339696963339 \\
52582299663693300774704(5) \ldots
\end{gathered}
\]

Above, we can see that this row of Numbers contains a 'One-Step \(+6,+3,+3,+3,+9,+6,+9,+6,+9,+6,+3\), \(+3,+3,+9,+6,+9,+6,+9,+6,+3,+3,+3,+9\) Progressive Pattern', with this 'Progressive Pattern' not maintaining 'Shock Parity', in that it involves four 'Positive Shocks' and one 'Negative Shock'. (The twenty-three values of change which comprise one complete Cycle of this 'Progressive Pattern' involve two and a half iterations of a " \(+6,+3,+3,+3,+9,+6,+9,+6,+9\) " pattern.) This 'One-Step \(+6,+3,+3,+3,+9\), \(+6,+9,+6,+9,+6,+3,+3,+3,+9,+6,+9,+6,+9,+6,+3,+3,+3,+9\) Progressive Pattern' is contained within the same 'Repetition Pattern' as the 'Eleven-Step \(+3,+1,+6\) Progressive Pattern' which was seen at the beginning of this section. These two 'Progressive Patterns' involve the same constituent Numbers (albeit in alternate arrangements), which indicates the Fractal quality of 'Progressive Patterns', which has been mentioned previously, and will be examined more thoroughly in the next section of these endnotes.

That brings the first section of these endnotes to a close. The next section will involve another instance of Fractally interrelated 'Progressive Patterns', both of which are contained within this same 'Repetition Pattern'.

Next, we will examine a pair of Matching 'Progressive Patterns' which are similar to those which were examined in the endnotes of "Chapter 6.3". These 'Progressive Patterns' are both contained within the 'Repetition Pattern' of the Average of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the seventh iteration of the Function of "1/6", as is explained below.

First, we will show this 'Repetition Pattern' in a slightly larger font, which will cause it to align into horizontal rows of seventy-six digits, with these seventy-six-digit horizontal rows causing the colored Numbers which comprise the 'Nineteen-Step \(+8,+4,+2\) Progressive Pattern' to align into four vertical columns which reveal the 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' which is contained within the same 'Repetition Pattern', as is shown below. (The constituent Numbers of the 'Nineteen-Step \(+8,+4,+2\) Progressive Pattern' align into four vertical columns due to the fact that seventy-six digits is a Multiple of nineteen steps, in that "76/19=4". While in this case, the 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' runs repeatedly through the same nineteen iterations of the 'Repetition Pattern'.)
\[
\begin{aligned}
& 5020576131687242798353909465020576131687242798353909465020576131687242798353 \\
& 9094650205761316872427983539094650205761316872427983539094650205761316872427 \\
& 9835390946502057613168724279835390946502057613168724279835390946502057613168 \\
& 7242798353909465020576131687242798353909465020576131687242798353909465020576 \\
& 1316872427983539094650205761316872427983539094650205761316872427983539094650 \\
& 2057613168724279835390946502057613168724279835390946502057613168724279835390 \\
& 946502057613168724279835390946502057613168724279835390946(5) \ldots
\end{aligned}
\]

The four vertical columns of colored Numbers which are seen above reveal the first instance of the two Matching 'Progressive Patterns' which we will examine in this section, as is explained below.

First, we will strip away all of the non-highlighted columns, which will leave the four vertical columns of colored Numbers which are shown below.
```

5380
9464
9105
7502
1686
2327
9 3(5)

```

Next, we will align these four vertical columns into one horizontal row of non-highlighted Numbers, as is shown below. (The vertical columns which are seen above display various forms of 'Family Group Matching' between the condensed sums of the 'Cross Numbers' which are contained within each of the squares of four Numbers which are contained within the Neighboring columns, with these forms of 'Family Group Matching' being similar to those which are displayed between the squares of four Numbers which are contained within the Neighboring columns which were examined in the previous section (as well as those which were examined in the endnotes of the previous sub-chapter). Though these instances of 'Family Group Matching' will not be examined here.)
\[
599712934156378600823045267(5) \ldots
\]

The row of Numbers which is seen above contains the four vertical columns of colored Numbers which are contained within the 'Repetition Pattern' which was seen a moment ago, with these four columns of Numbers each running from top to bottom, one after the other. This horizontal row of Numbers contains the constituent Numbers of the 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' which is
contained within the 'Repetition Pattern' of the Average of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the seventh iteration of the Function of " \(1 / 6\) ".

Next, we will highlight all of the Shocks which are involved in this 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' in their appropriate colors, as is shown below. (The highlighting which was seen a moment ago in the vertical columns of the 'Repetition Pattern' was in relation to the 'Nineteen-Step \(+8,+4,+2\) Progressive Pattern' which is contained within this 'Repetition Pattern', not the 'Seventy-SixStep \(+4,+9,+7\) Progressive Pattern' which is contained within this same 'Repetition Pattern'.)
\[
599712934156378600823045267(5) \ldots
\]

The constituent Numbers of the 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' which is seen above involve a familiar pattern, in that we examined a Matching 'Progressive Pattern' in the main part of this sub-chapter, as is explained below.

The Matching 'Progressive Pattern' which is referenced above is the 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern' which is contained within the same 'Repetition Pattern' (this being the 'Repetition Pattern' of the Average of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the seventh iteration of the Function of "1/6"), which is shown (again) below.
\[
\begin{aligned}
& 50205761316872427983539094650205761316872427983539094650205761316872427983539094650 \\
& 20576131687242798353909465020576131687242798353909465020576131687242798353909465020 \\
& 57613168724279835390946502057613168724279835390946502057613168724279835390946502057 \\
& 61316872427983539094650205761316872427983539094650205761316872427983539094650205761 \\
& 31687242798353909465020576131687242798353909465020576131687242798353909465020576131 \\
& 68724279835390946502057613168724279835390946502057613168724279835390946502057613168 \\
& 72427983539094650205761316872427983539094650205761316872427983539094650205761316872 \\
& 4279835390946(5) \ldots
\end{aligned}
\]

Next, we will remove all of the non-highlighted Numbers from this 'Repetition Pattern', which will leave the constituent Numbers of the 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern', as is shown below (with all of the Shocks highlighted in their appropriate colors).
\[
599712934156378600823045267(5) \ldots
\]

The row of Numbers which is seen above displays Matching in relation to the constituent Numbers of the 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' which is contained within this same 'Repetition Pattern', as is shown below.
'Seventy-Six-Step +4,+9,+7 Progressive Pattern': \(599712934156378600823045267(5) \ldots\) 'Twenty-Two-Step +4,+9,+7 Progressive Pattern': 599712934156378600823045267 (5)...

Above, we can see that these two 'Progressive Patterns' display Matching between one another, both Numerically and in terms of their Shocks, which means that these 'Progressive Patterns' differ solely in the Quantity of steps which they take to land on those Numbers, with these Quantities being seventy-
six and twenty-two, respectively. These are the same Quantities of steps which yielded Matching 'Progressive Patterns' in the endnotes of "Chapter 6.3" (in that case, the Matching 'Progressive Patterns' were the 'Seventy-Six-Step \(+3,+8,+6\) Progressive Pattern' and the 'Twenty-Two-Step \(+3,+8,+6\) Progressive Pattern'). Though these current values of change (which are " +4 ", " +9 ", and " +7 ") are all 1 Greater than those which are involved in the two Matching 'Progressive Patterns' which were seen in "Chapter 6.3" (which were " +3 ", " +8 ", and " +6 "). While Dividing the Quantity of seventy-six by the Quantity of twenty-two yields an 'Infinitely Repeating Decimal Number' quotient which contains a 'Repetition Pattern' which involves the members of the ' \(4 / 5\) Siblings' (in that " \(76 / 22=3.45 \ldots .\). "). Also, the 'Whole Number' part of this quotient, as well as its 'Repetition Pattern', condense to members of '3,6,9 Family Group' (with these condensed values being 3 and 9, respectively).

The Fractal interrelations between these two Matching 'Progressive Patterns' are a bit complex, and this complexity only grows when we compare a third (almost) Matching 'Progressive Pattern', as is explained below.

The main part of this sub-chapter also contained a third (flawed) instance of this particular 'Progressive Pattern, which is shown below. (This 'Progressive Pattern' is contained within the 'Infinitely Repeating Decimal Number' difference which is yielded by a 'Subtraction Function' which involves two 'Infinitely Repeating Decimal Number' quotients, one of which contains the previous 'Repetition Pattern' (this being the minuend). This interrelation may explain the flawed Matching which is displayed by this particular 'Progressive Pattern' in relation to the two Matching 'Progressive Patterns' which were examined a moment ago.)
\[
045267489711934156378600823(0) \ldots
\]

Above, we see a row of Numbers which contains the constituent Numbers of the 'One-Step \(+4,+9,+7\) Progressive Pattern' which is contained within the 'Repetition Pattern' of the difference between the Averages of the 'Repetition Patterns' which are contained within the 'Infinitely Repeating Decimal Number' quotients which are yielded by the sixth and seventh iterations of the Function of "1/6".

Numerically, this 'Progressive Pattern' displays a flawed form of 'Shifted Matching' in relation to the two Matching 'Progressive Patterns' which were seen a moment ago. Though this form of 'Shifted Matching' requires the inclusion of three 'Negative Shocks' in relation to this current 'Progressive Pattern' (or inversely, the inclusion of three 'Positive Shocks' in relation to the previous two Matching 'Progressive Patterns'), as is shown below, with this current 'Progressive Pattern' shown above an instance of the previous two Matching 'Progressive Patterns' (with the first six digits of the second iteration of the topmost 'Progressive Pattern' included in the diagram, in order to determine the Numerical Matching which is displayed between those six digits).
045267489711934156378600823045267...
599712934156378600823045267...

Above, we can see that with the inclusion of three 'Negative Shocks', this current 'Progressive Pattern' displays a form of 'Shifted Matching' (Numerically) in relation to the previous two Matching 'Progressive Patterns' (one instance of which is shown above).

While the Shocks which are involved in this current 'Progressive Pattern' mostly display Matching in relation to those which are involved in the previous two Matching 'Progressive Patterns', as is shown below. (In this case, the first six digits of the topmost 'Progressive Pattern' are shifted over to the end, in order to determine the Matching which is displayed between the Shocks which are involved in those six digits.)
\[
\begin{aligned}
& 489711934156378600823045267 \ldots \\
& 599712934156378600823045267 \ldots
\end{aligned}
\]

Above, only the vertically aligned instances of Matching Shocks are highlighted (in their standard colors), with twenty-two out of the twenty-seven columns involving instances of Matching Shocks.

Finally, to compound this complexity, and bring these endnotes to a close, we will highlight both the 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern' and the Matching 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' within the same nineteen iterations of the 'Repetition Pattern' which contains them (in arbitrary red and green, respectively), and then view this contrasting highlighting in various font sizes, which will cause these 'Progressive Patterns' to display a variety of vertical, horizontal, and diagonal alignments. (In this case, the 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' runs repeatedly through the same nineteen iterations of the 'Repetition Pattern', which is due to the fact that it would require too many iterations of the 'Repetition Pattern' to be shown in the traditional manner, as has been explained previously.)

First, we will show this 'Repetition Pattern' in a slightly larger font, which will cause it to align into seventy-six-digit horizontal rows, as is shown below. (Throughout the remainder of these endnotes, the 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern' will be indicated with an alternate form of red highlighting, and the 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern' will be indicated with an alternate form of green highlighting. While the few instances of blue highlighting will indicate Numbers which are involved in both of the 'Progressive Patterns'.)
\[
\begin{aligned}
& \text { 5020576131687242798353009465020576131687242798353909465020576131687242798353 } \\
& \text { 9094650205761316872427983539094650205761316872427983539094650205761316872427 } \\
& 9835390946502057613168724279835390946502057613168724279835390946502057613168 \\
& 7242798353909465020576131687242798353909465020576131687242798353909465020576 \\
& 131687242798353909465020571316872427983539094650205761316872427983539094650 \\
& 2057613168724279835390946502057613168724279835390946502057613168724279835390 \\
& 9465020576131687242798353909465020576131687242798353909465020576131687242798 \\
& 35390946502057613168724279835390946502057613168724279835390946(5) \ldots
\end{aligned}
\]

Above, we can see that this font size causes the red 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern' to form vague diagonal lines which run from left to right (though the 'Progressive Pattern' itself still runs horizontally), and the green 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' to form four vertical columns (though the 'Progressive Pattern' itself still runs vertically). Also, in this case, three of the Numbers at the bottom of the vertical columns are highlighted in purple to indicate that these are extra Numbers, in that they are represented again at the top of the next vertical column. (This characteristic is just a quirk of this particular alignment.)

Next, we will show this same 'Repetition Pattern' in a smaller font, which will cause it to align into one hundred and ten-digit horizontal rows, as is shown below (with these same 'Progressive Patterns' highlighted in the same colors).
50205761316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650
20576131687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020
57613168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946502057
61316872427983539094650205761316872427983539094650205761316872427983539094650205761316872427983539094650205761
31687242798353909465020576131687242798353909465020576131687242798353909465020576131687242798353909465020576131
\(68724279835390946502057613168724279835390946(5) \ldots\)

Above, we can see that this font size causes these two 'Progressive Patterns' to display a form of behavioral Mirroring in relation to the previous example, in that the red 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern' is now aligned into vertical columns (though the 'Progressive Pattern' itself still runs horizontally), while the green 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' now displays a left to right diagonal line pattern (though the 'Progressive Pattern' itself still runs horizontally).

Next, we will show this same 'Repetition Pattern' in a slightly larger font, which will cause it to align into ninety-digit horizontal rows, as is shown below (with these same 'Progressive Patterns' highlighted in the same colors).
```

50205761316872427983530094650205761316872427\835390946502057613168724279835390946502057613
168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279
835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946
502057613168724279835390946502057613168724279835390946502057613168724279835390946502057613
168724279835390946502057613168724279835390946502057613168724279835390946502057613168724279
835390946502057613168724279835390946502057613168724279835390946502057613168724279835390946
502057613168724279835390946502057613168724279835390946(5)...

```

Above, we can see that this font size causes these two 'Progressive Patterns' to display a form of orientational Mirroring between one another, in that the red 'Twenty-Two-Step \(+4,+9,+7\) Progressive Pattern' displays a right to left diagonal pattern (though the 'Progressive Pattern' itself still runs horizontally), while the green 'Seventy-Six-Step \(+4,+9,+7\) Progressive Pattern' displays a left to right diagonal line pattern (though the 'Progressive Pattern' itself still runs horizontally). (Also, it should be noted that in this example, the two blue Numbers are the 5 and the 2, as they have been throughout these three examples.)

There is more to be said about the Fractal quality of 'Progressive Patterns', though unfortunately, it will will not be said in this book.```

