## Chapter Four: "Cousin Quirks"

In this chapter, we will examine some of the quirks of the various Cousin pairs. While a few new concepts will be explored here, this chapter will mainly involve confirmations of and/or variations on some of the previously established behaviors which are displayed by the 'Base Numbers' in relation to one another.

To start, we will examine the three pairs of traditional Cousins, these being the ' $2 / 5$ Cousins', the ' $3 / 6$ Sibling/Cousins', and the '4/7 Cousins', which will be represented as the multiple-digit Numbers 25, 36, and 47 , respectively. What we will see below is that Adding the 9 to these multiple-digit Numbers yields a series of multiple-digit sums, each of which is comprised of the two single-digit Numbers which separate the particular instance of Cousins from which it was yielded, as is shown below. (In the example which is shown below, the original Numbers are highlighted arbitrarily in green, and the noncondensed solutions which they yield are highlighted arbitrarily in red, with this being the color code which will be used in relation to the majority of the examples which will be seen in this section.)

$$
\begin{aligned}
& 25+9=34(7) \\
& 36+9=45(9) \\
& 47+9=56(2)
\end{aligned}
$$

Above, we can see that the Addition of the 9 to the multiple-digit Number 25 yields a non-condensed sum of 34 , with the multiple-digit Number 34 being comprised of the 3 and the 4 which fall between the '2/5 Cousins', as is highlighted arbitrarily here: 2345 . While we can also see above that the Addition of the 9 to the multiple-digit Number 36 yields a non-condensed sum of 45 , with the multiple-digit Number 45 being comprised of the 4 and the 5 which fall between the '3/6 Sibling/Cousins', as is highlighted arbitrarily here: 3456 , and the Addition of the 9 to the multiple-digit Number 47 yields a non-condensed sum of 56, with the multiple-digit Number 56 being comprised of the 5 and the 6 which fall between the '4/7 Cousins', as is highlighted arbitrarily here: 4567 . Also, we can see above that the non-condensed sums which are yielded by the multiple-digit representations of the $2 / 5$ and $4 / 7$ Cousins each condense to a member of the '2/7 Siblings' (as is indicated in non-highlighted black), in that $" 3+4=7 "$ and $" 5+6=11(2)$ ". While we can also see above that the sums which are yielded by the multiple-digit representations of the two pairs of 'External Cousins' display 'External Cousin Mirroring' in relation to the multiple-digit Cousin representation from which they are yielded, in that the noncondensed sum which is yielded by the ' $2 / 5$ Cousins' condenses to the 7 , which is a member of the ' $4 / 7$ Cousins', and the non-condensed sum which is yielded by the '4/7 Cousins' condenses to the 2 , which is a member of the ' $2 / 5$ Cousins'. (Furthermore, it should be noted at this point that the ' $2 / 7 \mathrm{Siblings}$ ' display a form of orientational Mirroring between one another, in that the orientations of the 2 and the 7 within their respective Cousin pairings display orientational Mirroring between one another, as is highlighted arbitrarily here: $2 / 5$ and $4 / 7$.) Then there is the non-condensed sum which is yielded by the multiple-digit representation of the '3/6 Sibling/Cousins', which condenses to the 9 (in that " $4+5=9$ "), as is highlighted above in blue.

Before we move on, it should be noted that all of the examples which will be seen in this section in which the multiple-digit representations of the 'External Cousins' are involved in one of the '(+/-)

Sibling Functions' will involve solutions whose condensed values display Matching in relation to those which are seen above. This is due to the fact that we will be Adding and Subtracting 'Octaves Of The 9' to these same multiple-digit Cousin representations (in both standard and reversed order), and as has been explained previously, Functions which involve the Addition or Subtraction of 'Octaves Of The 9' are 'No Change Functions' in relation to the condensed values of the solutions which they yield.

Next, we will Add the 9 to the reversed order multiple-digit representations of the traditional Cousins (these being 52, 63, and 74), as is shown below.

$$
\begin{aligned}
& 52+9=61 \\
& 63+9=72 \\
& 74+9=83
\end{aligned}
$$

Above, we can see that the Addition of the 9 to the multiple-digit Number 52 yields a sum of 61, with the multiple-digit Number 61 being comprised of the Numbers which fall after the 5 and before the 2 (these being the 6 and the 1 , respectively), as is highlighted arbitrarily here: 123456 . While we can also see above that the Addition of the 9 to the multiple-digit Number 63 yields a sum of 72, with the multiple-digit Number 72 being comprised of the Numbers which fall after the 6 and before the 3, as is highlighted arbitrarily here: 234567 , and the Addition of the 9 to the multiple-digit Number 74 yields a sum of 83 , with the multiple-digit Number 83 being comprised of the Numbers which fall after the 7 and before the 4 , as is highlighted arbitrarily here: 345678 .

Next, we will Add the 9 to the multiple-digit representations of the '1/8 Sibling/Self-Cousins', these being 18 and 81. These two Functions will yield sums which display a form of behavioral Mirroring in relation to the sums which were seen in relation to the previous two examples, as is shown and explained below.

$$
\begin{aligned}
& 18+9=27(9) \\
& \text { and } \\
& 81+9=90(9)
\end{aligned}
$$

Above, we can see that the Addition of the 9 to the multiple-digit Number 18 yields a non-condensed sum of 27 . Though while the 2 and the 7 which comprise the multiple-digit Number 27 are technically two of the Numbers which fall between the 1 and the 8 , in this case they are considered to fall on the outside of the ' $1 / 8$ Sibling/Self-Cousins'. This is due to the fact that the ' $1 / 8$ Sibling/Self-Cousins' are closer to one another in a manner which displays Mirroring in relation to that of the $2 / 5,3 / 6$, and $4 / 7$ Cousins, in that the gap on the outside of the Numbers 1 and 8 is smaller than the gap on the inside, with this smaller outside gap being filled by the sum which is yielded by the Function of "81+9" (this being the multiple-digit Number 90). This means that the multiple-digit Number 90 (which is yielded by the Function of " $81+9$ ") is comprised of the 9 and 0 which separate the ' $1 / 8$ Sibling/Self-Cousins' on the outside, while the multiple-digit Number 27 (which is yielded by the Function of "18+9") is comprised of two of the six Numbers which separate the '1/8 Sibling/Self-Cousins' on the inside. (Also, we can see above that these two Functions yield non-condensed sums which condense to the 9 , as is highlighted in blue. This will be the case in relation to all of the examples which will be seen in this section in which the multiple-digit representations of the '1/8 Sibling/Self-Cousins' are involved in one of the '(+/-) Sibling Functions', for reasons which were explained earlier.)

The overall concept of the inside and the outside of the various Cousin pairs is explained below, using an arbitrary color code which is explained below the chart.

1/8: 123456789012345...
2/5: 123456789012345...
3/6: 123456789012345...
4/7: 123456789012345...
Above, we see four horizontal rows of Numbers, each of which contains one and a half iterations of the 'Base Set'. While we can also see above that each of these four rows of Numbers contains a run of four Numbers which are shown slightly larger than the rest, with each of these instances of larger Numbers consisting of one of the Cousin pairs, along with the two 'Base Numbers' which are oriented between those particular Cousins. In relation to the $2 / 5,3 / 6$, and $4 / 7$ Cousins, the large green Numbers are the Cousins, the large red Numbers are the Numbers which are oriented on the inside of the various pairs of Cousins, and the blue Numbers (all of which are shown in a normal sized font) are the Numbers which are oriented on the outside of the various pairs of Cousins. While in relation to the ' $1 / 8$ Sibling/Self-Cousins', the large green Numbers are the Cousins, the large red Numbers are the Numbers which are oriented on the outside of the Cousins, and the blue Numbers are the Numbers which are oriented on the inside of the Cousins. (In relation to all four of the individual examples, the next instance of the Lesser of that Cousin pair is highlighted in green at the opposing end of the blue Numbers.)

Next, we will Subtract the 9 from the various multiple-digit Cousin representations, as is shown below.

| $25-9=16$ (outside) | (123456) |
| :---: | :---: |
| 52-9=43 (inside) | (5432) |
| $36-9=27$ (outside) | (234567) |
| 63-9=54 (inside) | (6543) |
| 47-9=38 (outside) | (345678) |
| 74-9=65 (inside) | (7654) |
| 18-9=9 (inside) | (1098) |
| 81-9=72 (outside) | (87654321) |

Above, we can see that the Subtraction of the 9 from the multiple-digit representations of the various Cousin pairs yields non-condensed differences which display a form of Mirroring in relation to the non-condensed sums which are yielded by the Addition of the 9 to these same multiple-digit Cousin representations. This particular form of Mirroring involves the inside and outside Numbers which were explained a moment ago, in that in this case, in relation to the $2 / 5,3 / 6$, and $4 / 7$ Cousins, the inside Numbers are yielded by the reversed order Cousin representations, and run backwards (where as in relation to the Addition of the 9 , the inside Numbers are yielded by the standard order Cousin representations, and run in standard order), and the outside Numbers are yielded by the standard order Cousin representations, and run in standard order (where as in relation to the Addition of the 9 , the outside Numbers are yielded by the reversed order Cousin representations, and run in reversed order). While in this case, in relation to the '1/8 Sibling/Self-Cousins', the the inside Numbers are yielded by the standard order Cousin representations, and run in standard order (where as in relation to the Addition of the 9, the inside Numbers are yielded by the reversed order Cousin representations, and run in reversed order), and the outside Numbers are yielded by the reversed order Cousin representations, and run in reversed order (where as in relation to the Addition of the 9, the outside Numbers are yielded by the standard order Cousin representations, and run in standard order).

It should be noted at this point that the various behaviors which have been seen throughout this section (those which arise as a result of the Addition or Subtraction of the 9) arise due to the changes in the Octave of the original Numbers, which as has been explained previously, are always facilitated by the Addition or Subtraction of the 9 (or an 'Octave Of The 9'). This important characteristic of the 9 will be seen throughout upcoming chapters, and will eventually be explained more thoroughly in "Quantum Mathematics and the Standard Model of Physics Part Eight: Sibling Similarity and Base Charge".

While it is also worth noting that in relation to the examples which are seen above, the various noncondensed solutions which are yielded by the Functions which involve the Addition and Subtraction of the 9 to and from the multiple-digit representations of the $2 / 5$ and $4 / 7$ Cousins all condense to a member of the ' $2 / 7$ Siblings' (as is also the case in relation to the ' $2 / 5$ Cousins' and the ' $4 / 7$ Cousins' themselves, in that " $2+5=7$ " and " $4+7=11(2)$ "), while the various non-condensed solutions which are yielded by the Functions which involve the Addition and Subtraction of the 9 to and from multiple-digit representations of the '1/8 Sibling/Self-Cousins' and the '3/6 Sibling/Cousins' all condense to the 'SelfSibling/Cousin 9' (as is also the case in relation to the ' $1 / 8$ Sibling/Self-Cousins' and the '3/6 Sibling/Cousins' themselves, in that " $8+1=9$ ", and " $3+6=9$ "). This behavior arises due in part to the fact that the Number pairs of $1 / 8$ and $3 / 6$ each maintain a unique form of 'Sibling/Cousin Relationship' between one another, which means that all of their 'Direct Relationships' are maintained within their individual pairings. (To clarify, the two forms of 'Direct Relationship' which are maintained between pairs of Numbers are the Sibling and Cousin Relationships, as was explained briefly in "Chapter Zero".) This qualifies both the ' $1 / 8$ Sibling/Self-Cousins' and the '3/6 Sibling/Cousins' as "Internal Cousins", in that all of their 'Direct Relationships' are Internal. This is not the case in relation to the $2 / 5$ and $4 / 7$ Cousins, each of which is comprised of Numbers which maintain 'Direct Relationships' with Numbers which fall outside of that particular Cousin pairing (with these 'Direct Relationships' being maintained between the $2 / 7$ and $4 / 5$ Siblings). This qualifies both the ' $2 / 5$ Cousins' and the ' $4 / 7$ Cousins' as "External Cousins", in that half of their 'Direct Relationships' are External (to the individual pairings). (The overall concept of Internal and External Cousins will be seen again in "Quantum Mathematics and the Standard Model of Physics Part Seven: Mirroring between Collective Functions".)

Next, we will Multiply the multiple-digit representation of the standard order ' $2 / 5$ Cousins' by the 9 , as is shown below.

$$
25 \mathrm{X} 9=225(9)
$$

Above, we can see that the Function of "25X9" yields a non-condensed product of 225, which condenses to the 9, as is highlighted in blue. Also, we can see above that the multiple-digit Number 225 involves an instance of the ' $2 / 5$ Cousins' (which is highlighted arbitrarily in green), along with an extra instance of the 2 (which is highlighted arbitrarily in red). (In this case, the extra instance of the 2 could also be considered to be oriented between the instance of the ' $2 / 5$ Cousins', as is highlighted arbitrarily here: 225.)

Before we move on, it should be noted that all of the examples which will be seen in this section which involve the 'Multiplication Function' will involve non-condensed products which condense to the 9 , as is the case in relation to the example which is seen above. This is due to the fact that we will be Multiplying the various multiple-digit Cousin representations by 'Octaves Of The 9', and as has been explained previously, any 'Multiplication Function' which involves at least one factor which is an 'Octave Of The 9' will always yield a non-condensed product which condenses to the 9. (This behavior arises due to the Attractive quality which the 9 displays in relation to the 'Multiplication Function', as
has been mentioned previously, and as will be explained more thoroughly in "Quantum Mathematics and the Standard Model of Physics Part Five: Color and Reactive Charges".)

Next, we will Multiply the remaining multiple-digit representations of the Cousins by the 9 , as is shown below.

$$
\begin{aligned}
& 52 \mathrm{X} 9=468(9) \\
& 47 \mathrm{X} 9=423(9) \\
& 74 \mathrm{X} 9=666(9) \\
& 18 \mathrm{X} 9=162(9) \\
& 81 \mathrm{X} 9=729(9) \\
& 36 \mathrm{X} 9=324(9) \\
& 63 \mathrm{X} 9=567(9)
\end{aligned}
$$

Above, we can see that each of these Functions yields a non-condensed product which condenses to the 9 , for reasons which were explained a moment ago.

Next, we will Divide the multiple-digit representations of the standard order 'External Cousin' pairs by the 9 , as is shown below.

$$
\begin{gathered}
25 / 9=2.7 \ldots \\
\text { and } \\
47 / 9=5.2 \ldots
\end{gathered}
$$

Above, we can see that the Function of "25/9" yields an 'Infinitely Repeating Decimal Number' quotient which involves an instance of the '2/7 Siblings', and the Function of "47/9" yields an 'Infinitely Repeating Decimal Number' quotient which involves an instance of the ' $2 / 5$ Cousins'. (In this case, the instance of the '2/7 Siblings' is highlighted arbitrarily in green, and the instance of the ' $2 / 5$ Cousins' is highlighted arbitrarily in red.)

Next, we will Divide the multiple-digit representations of the reversed order 'External Cousin' pairs by the 9 , as is shown below.

$$
\begin{gathered}
52 / 9=5.7 \ldots \\
\text { and } \\
74 / 9=8.2 \ldots
\end{gathered}
$$

Above, we can see that outside of the incidental instance of 'Cousin Mirroring' which is displayed between these two quotients (which is highlighted arbitrarily in green), the 'Infinitely Repeating Decimal Number' quotients which are yielded by these two Functions display no forms of Mirroring or Matching between themselves or one another.

Next, we will Divide each of the multiple-digit representations of the '1/8 Sibling/Self-Cousins' by the 9, as is shown below.

$$
\begin{gathered}
18 / 9=2 \\
\text { and } \\
81 / 9=9
\end{gathered}
$$

Above, we can see that these two Functions yield 'Whole Number' quotients of 9 and 2, which do not display any forms of Mirroring or Matching between one another.

Next, we will Divide each of the multiple-digit representations of the '3/6 Sibling/Cousins' by the 9 , as is shown below.

$$
\begin{gathered}
36 / 9=4 \\
\text { and } \\
63 / 9=7
\end{gathered}
$$

Above, we can see that these two Functions yield 'Whole Number' quotients which display 'Cousin Mirroring' between one another, as is highlighted arbitrarily in green.

Next, we will Add, Subtract, and Multiply the first Octave the 9 (this being the multiple-digit Number 18) to, from, and by the multiple-digit representations of the various Cousin pairs. These Functions will display behaviors which are similar to those which are displayed in relation to the Functions which involve the Addition, Subtraction, and Multiplication of the 9 to, from, and by the multiple-digit representations of the various Cousin pairs, as is shown and explained below. (It should be noted at this point that the first Octave of the 9 (this being 18) involves the multiple-digit representation of the '1/8 Sibling/Self-Cousins', the second Octave of the 9 (this being 27) involves the multiple-digit representation of the ' $2 / 7$ Siblings', the third Octave of the 9 (this being 36) involves the multiple-digit representation of the '3/6 Sibling/Cousins', and the fourth Octave of the 9 (this being 45) involves the multiple-digit representation of the ' $4 / 5$ Siblings', while the next five Octaves of the 9 involve the reversed order multiple-digit Sibling representations of 54, 63, 72, 81, and 90.)

To start, we will Add 18 to the multiple-digit representations of the standard order 'External Cousin' pairs, as is shown below.

$$
\begin{gathered}
25+18=43 \\
\text { and } \\
47+18=65
\end{gathered}
$$

Above, we can see that the Addition of 18 to the multiple-digit Number 25 yields a non-condensed sum of 43 , with the multiple-digit Number 43 being comprised of the 3 and the 4 which fall between the ' $2 / 5$ Cousins', as is highlighted arbitrarily here: 2435 . While we can also see above that the Addition of 18 to the multiple-digit Number 47 yields a non-condensed sum of 65 , with the multiple-digit Number 65 being comprised of the 5 and the 6 which fall between the '4/7 Cousins', as is highlighted arbitrarily here: 4657. (These Functions display a form of Mirroring in relation to the Functions which involve the Addition of the 9 to the multiple-digit representations of the standard order 'External Cousin' pairs, in that in this case, the inside Numbers occur in reversed order, where as in relation to the Addition of the 9 , the inside Numbers occur in standard order.)

Next, we will Subtract 18 from the multiple-digit representations of the reversed order 'External Cousin' pairs, as is shown below.

$$
\begin{gathered}
52-18=34 \\
\text { and } \\
74-18=56
\end{gathered}
$$

Above, we can see that the Subtraction of 18 from the multiple-digit Number 52 yields a noncondensed difference of 34, with the multiple-digit Number 34 being comprised of the 3 and the 4 which fall between the ' $2 / 5$ Cousins', as is highlighted arbitrarily here: 2345 . While we can also see above that the Subtraction of 18 from the multiple-digit Number 74 yields a non-condensed difference of 56 , with the multiple-digit Number 56 being comprised of the 5 and the 6 which fall between the '4/7

Cousins', as is highlighted arbitrarily here: 4567. (These Functions display a form of Mirroring in relation to the Functions which involve the Subtraction of the 9 from the multiple-digit representations of the reversed order 'External Cousin' pairs, in that in this case, the inside Numbers occur in standard order, where as in relation to the Subtraction of the 9 , the inside Numbers occur in reversed order.)

Next, we will Subtract 18 from the multiple-digit representations of the standard order 'External Cousin' pairs, as is shown below.

$$
\begin{gathered}
25-18=07 \\
\text { and } \\
47-18=29
\end{gathered}
$$

Above, we can see that the Subtraction of 18 from the multiple-digit Number 25 yields a noncondensed difference of (0)7, with the multiple-digit Number 07 being comprised of the 0 and the 7 which are oriented one concentric step outwards from the '2/5 Cousins', as is highlighted arbitrarily here: 01234567 . While we can also see above that the Subtraction of 18 from the multiple-digit Number 47 yields a non-condensed difference of 29, with the multiple-digit Number 29 being comprised of the 2 and the 9 which are oriented one concentric step outwards from the '4/7 Cousins', as is highlighted arbitrarily here: 23456789 . (The behavior which is yielded by the Subtraction of 18 from the multiple-digit representations of the standard order 'External Cousin' pairs is similar to that which is yielded by the Subtraction of the 9 from the multiple-digit representations of the standard order 'External Cousin' pairs, in that the Subtraction of the 9 yields non-condensed differences which are comprised of the Numbers which fall on the immediate outside of the 'External Cousin' pairs.) Also, we can see above that the non-condensed differences which are yielded by these two Functions display a form of 'Cross Mirroring' between one another, in that they are comprised of a diametrically opposed instance of the '2/7 Siblings' (which is highlighted arbitrarily in green), along with a diametrically opposed 'Self-Sibling/Cousin 0' and 'Self-Sibling/Cousin 9' (both of which are highlighted in blue).

Next, we will Add 18 to the multiple-digit representations of the reversed order 'External Cousin' pairs, as is shown below.

$$
\begin{gathered}
52+18=70 \\
\text { and } \\
74+18=92
\end{gathered}
$$

Above, we can see that the non-condensed sums which are yielded by these Functions display Mirroring in relation to the non-condensed differences which were seen in relation to the Subtraction of 18 from the multiple-digit representations of the standard order 'External Cousin' pairs, in that the noncondensed sum of 70 which is yielded by the Function of " $52+18$ " displays orientational Mirroring in relation to the non-condensed difference of ( 0 ) 7 which is yielded by the Function of "25-18", and the non-condensed sum of 92 which is yielded by the Function of " $74+18$ " displays orientational Mirroring in relation to the non-condensed difference of 29 which is yielded by the Function of "47-18".

Next, we will Add and Subtract 18 from the multiple-digit representations of both the standard and reversed order ' $1 / 8$ Sibling/Self-Cousins', as is shown below (through the page break).

$$
\begin{gathered}
18+18=36 \\
\text { and } \\
81+18=99
\end{gathered}
$$

```
18-18= 0
    and
81-18=63
```

Above, we can see that all four of these Functions yield non-condensed solutions which are comprised exclusively of '3,6,9 Family Group' members, as is highlighted arbitrarily in red.

Next, we will Multiply each of the multiple-digit Cousin representations by 18, as is shown below.

$$
\begin{aligned}
& 18 \mathrm{X} 18=324(9) \\
& 81 \mathrm{X} 18=1458(9) \\
& 25 \mathrm{X} 18=450(9) \\
& 52 \mathrm{X} 18=936(9) \\
& 36 \mathrm{X} 18=648(9) \\
& 63 \mathrm{X} 18=1134(9) \\
& 47 \mathrm{X} 18=846(9) \\
& 74 \mathrm{X} 18=1332(9)
\end{aligned}
$$

Above, we can see that each of these Functions yields a non-condensed product which condenses to the 9 , as is highlighted in blue. While we can also see above that seven of these non-condensed products condense to the 9 via an intermediary instance of the '3/6 Sibling/Cousins' (with the non-condensed Numbers which yield these condensed 3's and 6's being highlighted in green and red, respectively), and one of these examples condenses to the 9 via intermediary instances of the 'Self-Sibling/Cousin 9' and the 'Self-Sibling/Cousin 0' (with the non-condensed Numbers which yield these 'Self-Sibling/Cousins' all being highlighted in blue).

It should be mentioned at this point that we will not be examining the Functions which involve the Division of the multiple-digit representations of the Cousins by the multiple-digit Number 18 (nor will we be examining the Functions which involve the Division of the multiple-digit representations of the Cousins by the multiple-digit Number 27), as the quotients which these Functions yield display vague forms of behavior, as is usually the case in relation to the 'Division Function'.

Next, we will raise the 9 up to its second Octave (this being the multiple-digit Number 27), and perform the '(+/-) Sibling Functions' on the various multiple-digit representations of the Cousin pairs, as is shown and explained below. (We will not be examining the Functions which involve the Multiplication of the multiple-digit representations of the various Cousin pairs by 27, as these Functions display behaviors which are similar to those which are displayed by the Multiplication of the multiple-digit representations of the various Cousin pairs by the factors of 9 and 18.)

To start, we will Add 27 to the multiple-digit representations of the standard order 'External Cousin' pairs, as is shown below.

$$
\begin{gathered}
25+27=52 \\
\text { and } \\
47+27=74
\end{gathered}
$$

Above, we can see that the Addition of 27 to the multiple-digit representations of the standard order 'External Cousin' pairs yields non-condensed sums which display a form of orientational Mirroring in relation to the multiple-digit representations of the Cousins which yield them, in that the non-
condensed sum of 52 displays orientational Mirroring in relation to the addend of 25 , and the noncondensed sum of 74 displays orientational Mirroring in relation to the addend of 47.

Next, we will Add 27 to the multiple-digit representations of the reversed order 'External Cousin' pairs, as is shown below.

$$
\begin{gathered}
52+27=79 \\
\text { and } \\
74+27=101
\end{gathered}
$$

Above, we can see that these Functions yield non-condensed sums which display a form of 'Sibling Mirroring' between one another, in that the 9 which is contained within the non-condensed sum of 79 displays 'Sibling/Cousin Mirroring' in relation to the 0 which is contained within the non-condensed sum of 101 (as is highlighted in blue), and the 7 which is contained within the non-condensed sum of 79 displays 'Sibling Mirroring' in relation to the sum which is yielded by the two 1's which are contained within the non-condensed sum of 101 (as is highlighted arbitrarily in red).

Next, we will Subtract 27 from the multiple-digit representations of the reversed order 'External Cousin' pairs, as is shown below.
$52-27=25$
and
$74-27=47$

Above, we can see that the Subtraction of 27 from the multiple-digit representations of the reversed order 'External Cousin' pairs yields non-condensed differences which display a form of orientational Mirroring in relation to the multiple-digit representations of the Cousins which yield them, in that the non-condensed difference of 25 displays orientational Mirroring in relation to the minuend of 52 , and the non-condensed difference of 47 displays orientational Mirroring in relation to the minuend of 74 .

Next, we will Subtract 27 from the multiple-digit representations of the standard order 'External Cousin' pairs, as is shown below.

$$
\begin{gathered}
25-27=-2(7) \\
\text { and } \\
47-27=20(2)
\end{gathered}
$$

Above, we can see that the Subtraction of 27 from the multiple-digit representations of the standard order 'External Cousin' pairs yields non-condensed differences which display a form of orientational Mirroring between one another, in that the non-condensed difference of -(0)2 displays orientational Mirroring in relation to the non-condensed difference of 20. Also, we can see above that these two noncondensed differences display Mirroring between one another in relation to their 'Base Charges', in that the non-condensed difference of -2 possesses a 'Negative Base Charge', while the non-condensed difference of 20 possesses a 'Positive Base Charge'.

Also, before we move on, it should be noted that the non-condensed differences which are involved in the example which is seen above condense to a 'Positive Base Charged' instance of the '2/7 Siblings', as has been the case in relation to all of the examples which have been seen in this chapter in which the 'External Cousin' pairs have been involved either of the '(+/-) Sibling Functions'. This is despite the fact that the first of these Functions (this being "25-27") yields a non-condensed difference which possesses a 'Negative Base Charge', and this is due to the fact that this 'Negative Base Charged' non-condensed
difference condenses to a 'Positive Base Charged' value, in that the difference of "-2" condenses to " +7 ". This behavior is due to the overall concept of "Sibling Similarity", which involves a unique form of "Positive/Negative Sibling Mirroring", as will be seen throughout upcoming chapters, and will eventually be explained in "Quantum Mathematics and the Standard Model of Physics Part Eight: Sibling Similarity and Base Charge".

Next, we will Add 27 to the multiple-digit representations of the '1/8 Sibling/Self-Cousins', then we will Subtract 27 from these same multiple-digit Cousin representations, all of which is shown below.

$$
\begin{gathered}
18+27=45 \\
\text { and } \\
81+27=108 \\
18-27=-9 \\
\text { and } \\
81-27=54
\end{gathered}
$$

Above, we can see that the non-condensed solutions of 45 and 54 display orientational Mirroring between one another (as is highlighted arbitrarily in red), while the non-condensed solutions of 108 and -9 display 'Base Charge Mirroring' between one another (as is highlighted arbitrarily in purple).

Next, we will Add 27 to the multiple-digit representations of the ' $3 / 6$ Sibling/Cousins', then we will Subtract 27 from these same multiple-digit Cousin representations, all of which is shown below.

```
36+27=63
    and
63+27=90
36-27= 9
    and
63-27=36
```

Above, we can see that all four of these Functions yield non-condensed solutions which are comprised exclusively of '3,6,9 Family Group' members, as is highlighted arbitrarily in red. While we can also see above that the non-condensed solutions of 63 and 36 display orientational Mirroring between one another, as is also the case in relation to the non-condensed solutions of 90 and (0)9.

That brings this section to a close.

Next, we will examine the behaviors which are displayed by the solutions which are yielded by the Functions which involve the Addition, Subtraction, and Multiplication of the multiple-digit representations of the various Cousin pairs to, from, and by one another (respectively), all of which is shown and explained below. (It should be mentioned at this point that throughout this section, we will be disregarding the Functions which involve the Division of the multiple-digit representations of the Cousins by one another, as the quotients which are yielded by those Functions display vague behaviors which would be of little use to us.)

To start, we will Add the various multiple-digit representations of the 'External Cousin' pairs to one another, as is shown below.

$$
\begin{aligned}
& 25+47=72(9) \\
& 25+74=99(9) \\
& 52+47=99(9) \\
& 52+74=126(9)
\end{aligned}
$$

Above, we can see that all four of these non-condensed sums condense to the 9 , as is highlighted in blue.

Next, we will Add each of the multiple-digit representations of the 'External Cousin' pairs to itself, as is shown below.

$$
\begin{aligned}
& 25+25=50(5) \\
& 47+47=94(4) \\
& 52+52=104(5) \\
& 74+74=148(4) \\
& 25+52=77(5) \\
& 47+74=121(4)
\end{aligned}
$$

Above, we can see that all three of these pairs of Functions yield non-condensed sums which condense to an instance of the ' $4 / 5$ Siblings' (with the members of the three instances of the ' $4 / 5$ Siblings' all highlighted arbitrarily in green and red, respectively).

Next, we will Subtract the various multiple-digit representations of the 'External Cousin' pairs from one another, as is shown below (with each of the Functions performed both ways, due to the quality of Locality).

$$
\begin{aligned}
& 25-47=-22(5) \\
& 25-74=-49(5) \\
& 52-47=5(5) \\
& 52-74=-22(5) \\
& 47-25=22(4) \\
& 47-52=-5(4) \\
& 74-25=49(4) \\
& 74-52=22(4)
\end{aligned}
$$

Above, we can see that the four Functions which involve one of the multiple-digit representations of the '2/5 Cousins' as the minuend all yield non-condensed differences which condense to the 5 (as is highlighted arbitrarily in red), with three of these condensed values of 5 having been yielded via 'Positive/Negative Sibling Mirroring'. While we can also see above that the four Functions which involve one of the multiple-digit representations of the ' $4 / 7$ Cousins' as the minuend all yield noncondensed differences which condense to the 4 (as is highlighted in green), with one of these condensed values of 4 having been yielded via an instance of 'Positive/Negative Sibling Mirroring'.

Next, we will Subtract the multiple-digit representations of the 'External Cousin' pairs from themselves (both ways), as is shown below.

$$
\begin{aligned}
& 25-52=-27(9) \\
& 52-25=27(9) \\
& 47-74=-27(9) \\
& 74-47=27(9)
\end{aligned}
$$

Above, we can see that all four of these Functions yield non-condensed differences which condense to the 9 (as is highlighted in blue), with two of these condensed values of 9 having been yielded via instances of 'Positive/Negative Sibling Mirroring'.

Next, we will Multiply the various multiple-digit representations of the 'External Cousin' pairs by one another, as is shown below.

$$
\begin{aligned}
& 25 \mathrm{X} 47=1175(5) \\
& 25 \mathrm{X} 74=1850(5) \\
& 52 \mathrm{X} 47=2444(5) \\
& 52 \mathrm{X} 74=3848(5)
\end{aligned}
$$

Above, we can see that all four of these Functions yield non-condensed products which condense to the 5 , as is highlighted in red.

Next, we will Multiply the multiple-digit representations of the 'External Cousin' pairs by themselves, as is shown below.

$$
\begin{aligned}
& 25 \mathrm{X} 52=1300(4) \\
& 47 \mathrm{X} 74=3478(4)
\end{aligned}
$$

Above, we can see that each of these Functions yields a non-condensed product which condenses to the 4, as is highlighted in green.

Next, we will Add, Subtract, and Multiply the multiple-digit representations of the '1/8 Sibling/SelfCousins' to, from, and by one another (in all orders and arrangements), as is shown below. (It should be mentioned at this point that the two individual Functions which are missing from each of the next two examples have been disregarded due to the quality of Non-Locality in relation to the Addition and Multiplication Functions.)

$$
\begin{array}{lll}
18+18=36(9) & 18-18= & 0(9) \\
18+81=99(9) & 18-81= & -63(9) \\
81-81= & 0(9) & 18 \times 18=324(9) \\
81+81=162(9) & 81-18=63(9) & 81 \times 81=6561(9) \\
& &
\end{array}
$$

Above, we can see that all of these Functions yield non-condensed solutions which condense to the 9 (as is highlighted in blue), with all of these condensed values of 9 having been yielded via intermediary instances of condensed values which maintain the '3,6,9 Family Group'. (In this case, the noncondensed Numbers which yield the condensed instances of the '3/6 Sibling/Cousins' are highlighted in green and red, respectively, while the non-highlighted non-condensed sum of 99 condenses to the 9 via an intermediary pair of 'Self-Sibling/Cousin 9's', and the non-highlighted non-condensed differences of 0 condense directly to the 9 .)

Next, we will Add, Subtract, and Multiply the multiple-digit representations of the '3/6 Sibling/Cousins' to, from, and by one another (in all orders and arrangements), as is shown below.

$$
\begin{array}{lll}
36+36=72(9) & 36-36=0(9) & 36 X 36=1296(9) \\
36+63=99(9) & 36-63=-27(9) & 36 X 63=2268(9) \\
63+63=126(9) & 63-63=0(9) & 63 X 63=3969(9) \\
& 63-36=27(9) &
\end{array}
$$

Above, we can see that all of these Functions yield non-condensed solutions which condense to the 9, with all of these condensed values of 9 having been yielded via intermediary instances of condensed values which maintain the '3,6,9 Family Group'. (This example involves the same color code as was used in relation to the previous example, and as will also be used in relation to the next example.)

Next, we will Add, Subtract, and Multiply the various multiple-digit representations of the ' $1 / 8$ Sibling/Self-Cousins' to, from, and by the various multiple-digit representations of the '3/6 Sibling/Cousins', as is shown below. (It should be mentioned that this example also involves the Subtraction of the multiple-digit representations of the '3/6 Sibling/Cousins' from the multiple-digit representations of the ' $1 / 8$ Sibling/Self-Cousins', due to the the quality of Non-Locality which is possessed by the 'Subtraction Function'.)

$$
\begin{array}{llll}
18+36=54(9) & 18-36=-18(9) & 36-18=18(9) & 18 \times 36=648(9) \\
18+63=81(9) & 18-63=-45(9) & 63-18=45(9) & 18 \times 63=1134(9) \\
81+36=117(9) & 81-36=45(9) & 36-81=-45(9) & 81 \times 36=2916(9) \\
81+63=144(9) & 81-63=18(9) & 63-81=-18(9) & 81 \times 63=5103(9)
\end{array}
$$

Above, we can see that all of these Functions yield non-condensed solutions which condense to the 9, with the non-condensed solutions which are yielded by the '( $+/-$ ) Sibling Functions' all condensing directly to the 9 , and the non-condensed products which are yielded by the 'Multiplication Functions' all condensing to the 9 via an intermediary pair of condensed '3/6 Sibling/Cousins'.

That brings this section to a close.

## $* * * * * * * * *$

Next, we will examine the forms of 'Cousin Mirroring' which are displayed between the condensed values of the products which are yielded by the Squaring of each of the members of the 'External Cousin' pairs, as is shown below.

$$
\begin{aligned}
& 2^{2}=4(4) \\
& 5^{2}=25(7) \\
& 4^{2}=16(7) \\
& 7^{2}=49(4)
\end{aligned}
$$

Above, we can see that the Squaring of the first member of the ' $2 / 5$ Cousins' yields a non-condensed product which condenses to the first member of the ' $4 / 7$ Cousins', and the Squaring of the second member of the ' $2 / 5$ Cousins' yields a non-condensed product which condenses to the second member of the ' $4 / 7$ Cousins' (as is highlighted arbitrarily in green). While we can also see above that the Squaring of the first member of the ' $4 / 7$ Cousins' yields a non-condensed product which condenses to the second
member of the ' $4 / 7$ Cousins', and the Squaring of the second member of the ' $4 / 7$ Cousins' yields a noncondensed product which condenses to the first member of the '4/7 Cousins' (as is highlighted arbitrarily in red).

It should be noted at this point that the fact that the Squaring of the individual members of the $2 / 5$ and $4 / 7$ Cousins yields non-condensed products which condense exclusively to members of the '4/7 Cousins' indicates that the ' $4 / 7$ Cousins' display a form of Dominance over the '2/5 Cousins', with this form of Dominance being an extension of the Dominance which the '1,4,7 Family Group' displays over the '2,5,8 Family Group'. (This form of Dominance arises due to the fact that the ' $4 / 7$ Cousins' are both members of the '1,4,7 Family Group', while the ' $2 / 5$ Cousins' are both members of the ' $2,5,8$ Family Group'. This implies that the 'Self-Cousin 1' displays this same form of Dominance over its Sibling the 'Self-Cousin 8'.)

That brings this section to a close.

Next, we will examine the concept of Averages in relation to Cousins, Family Groups, and Octaves, as is explained below. (The overall concept of Averages has been seen briefly in previous chapters, and will be the subject of "Chapter 6.6: Averages".)

To start, we will determine the Average value of the members of each of the traditional Cousin pairs. These non-condensed Averages will each condense to a value which completes that particular Family Group, as is shown below. (The example which is seen below involves Family Group highlighting, as will be the case in relation to all of the examples which will be seen in this section.)

$$
\begin{aligned}
& 2+5=7 \text { and } 7 / 2=3.5(8) \\
& 4+7=11 \text { and } 11 / 2=5.5(1) \\
& 3+6=9 \text { and } 9 / 2=4.5(9)
\end{aligned}
$$

Above, we can see that the Function of " $2+5$ " yields a non-condensed sum of 7, which when Divided by the 2 , yields a non-condensed quotient which condenses to the 8 , with this condensed value of 8 completing the '2,5,8 Family Group'. While we can also see that this overall behavior maintains in relation to the other two traditional Cousin pairs as well, in that the Function of " $4+7$ " yields a noncondensed sum of 11 , which Divides by the 2 to yield a non-condensed quotient which condenses to the 1 , and the Function of " $3+6$ " yields a non-condensed sum of 9 , which Divides by the 2 to yield a non-condensed quotient which condenses to the 9 . Also, we can determine that the vertical columns of addends, sums, minuends, and quotients which are contained within the chart which is seen above all Add to non-condensed sums which condense to the 9 , in that " $2+4+3=9(9)$ ", " $5+7+6=18(9)$ ", $" 7+11+9=27(9)$ " (twice), " $3.5+5.5+4.5=13.5(9)$ ", and " $8+1+9=18(9)$ ".

Next, we can determine that this Family Group behavior maintains in relation to the Averaging of all of the other pairs of fellow Family Group members, as is shown below (through the page break).

$$
\begin{aligned}
& 2+8=10 \text { and } 10 / 2=5 \\
& 4+1=5 \text { and } 5 / 2=2.5(7) \\
& 3+9=12 \text { and } 12 / 2=6
\end{aligned}
$$

$$
\begin{aligned}
& 5+8=13 \text { and } 13 / 2=6.5(2) \\
& 1+7=8 \text { and } 8 / 2=4 \quad(4) \\
& 6+9=15 \text { and } 15 / 2=7.5(3)
\end{aligned}
$$

Above, we can see that this same overall behavior maintains in relation to all of the pairs of fellow Family Group members, in that each of the horizontal columns which are contained within the chart which is seen above contains three highlighted values which comprise an instance of a complete Family Group. Also, we can determine that the vertical columns of addends, sums, minuends, and quotients which are contained within the chart which is seen above all Add to non-condensed sums which condense to the 9 , as is also the case in relation to the previous example.

While we can also determine that this Family Group behavior maintains when we are working with Octaves of the Fellow Family Group members, as is explained below.

To start, we will Add the Lesser member of each of the traditional Cousin pairs to the first Octave of the Greater member of that Cousin pair, and then Divide the non-condensed sums which these Functions yield by the 2 in order to determine the Average of those two Numbers, as is shown below.

$$
\begin{aligned}
& 2+\text { the first Octave of } 5(14)=16 \text { and } 16 / 2=8(8) \\
& 4+\text { the first Octave of } 7(16)=20 \text { and } 20 / 2=10(1) \\
& 3+\text { the first Octave of } 6(15)=18 \text { and } 18 / 2=9(9)
\end{aligned}
$$

Above, we can see that the Addition of the 2 to the first Octave of the 5 yields a non-condensed sum of 16 , which when Divided by the 2, yields a non-condensed quotient which condenses to the 8 , with this condensed value of 8 completing the '2,5,8 Family Group'. This same behavior maintains in relation to the other two traditional Cousin pairs as well, in that the Function of " $4+16$ " yields a sum of 20, which Divides by the 2 to yield a non-condensed quotient which condenses to the 1, and the Function of " $3+15$ " yields a sum of 18 , which Divides by the 2 to yield a non-condensed quotient which condenses to the 9 . Also, we can determine that the vertical columns of addends, sums, minuends, and quotients which are contained within the chart which is seen above all Add to non-condensed sums which condense to the 9 , as has also been the case in relation to all of the examples which have been seen in this section.

Next, we will Add the Greater member of each of the traditional Cousin pairs to the first Octave of the Lesser member of that Cousin pair, and then Divide the non-condensed sums which these Functions yield by the 2 in order to determine the Average of those two Numbers, as is shown below.
the next Octave of $2(11)+5=16$ and $16 / 2=8(8)$
the next Octave of $4(13)+7=20$ and $20 / 2=10(1)$ the next Octave of $3(12)+6=18$ and $18 / 2=9(9)$

Above, we can see that this example displays Matching in relation to the previous example, with the exception of the first vertical column of addends (that which is comprised of the first Octaves of the Lesser of the Cousin pairs). (Though this vertical column of Addends maintains the previously established condensed 9 behavior, in that "11+13+12=36(9)".)

Though it should be noted that this Family Group behavior is not displayed in relation to the '1/8 Sibling/Self-Cousins', as is shown below.

$$
1+8=9 \text { and } 9 / 2=4.5(9)
$$

Above, we can see that the Function of " $1+8$ " yields a non-condensed sum of 9, which when Divided by the 2 , yields a non-condensed quotient which condenses to the 9 . This unique condensed 9 behavior arises due to the fact that the ' $1 / 8$ Sibling/Self-Cousins' do not share a Family Group between one another, unlike the three traditional Cousin pairs, each of which is comprised of Numbers which maintain the same Family Group.

That brings this section to a close.

Next, we will examine the patterned behaviors which are displayed by the products which are yielded by groups of Functions which involve the Multiplication of the members of the various Cousin pairs by one another (in the form of multiple-digit Numbers with Matching Quantities of digits), as is explained below.

We will start with the '3/6 Sibling/Cousins', which display the simplest behavior of all of the Cousins, as is shown below.

| 3X6 | $=18$ |  |
| :---: | :---: | :---: |
| 33X66 | $=2178$ | $2 / 7$ |
| 333X666 | $=221778$ | $4 / 5$ |
| 3333X6666 | $=22217778$ | 6/3 |
| 33333X66666 | $=2222177778$ | 8/1 |
| 333333X666666 | $=222221777778$ | 1/8 |
| 3333333X6666666 | = 22222217777778 | 3/6 |
| $33333333 X 66666666$ | $=222222177777778$ | 5/4 |
| $333333333 X 666666666$ | $=22222221777777778$ | 7/2 |
| $3333333333 X 6666666666$ | =222222221777777778 | 9/9 |

Above, we can see that all of these Functions yield non-condensed products which (with the exception of the first) contain groups of Matching Numbers which involve the members of the ' $2 / 7$ Siblings', with the Quantities of Numbers which are contained within each of the groups of Matching Numbers Growing by one as the products progress (with these groups of Matching Numbers highlighted arbitrarily in green and red, respectively). Also, we can see above that these groups of Matching Numbers are separated by a series of non-highlighted 1's which form a diagonal line which runs through the center of all of the products, with this diagonal line of 1's displaying 'Sibling Mirroring' in relation to the diagonal line of non-highlighted 8 's which is oriented at the end of the products. While in this case, the groups of 2's and 7's all Add to non-condensed sums whose condensed values display 'Sibling Mirroring' between one another, as is indicated to the far right of the products (with the condensed values of the non-condensed sums which are yielded by these groups of Matching Numbers all being highlighted in the same color code as the groups of Matching Numbers which yield them).

Also, considering that each of these products is comprised of two groups of Numbers which condense to a pair of Siblings, along a pair of ' $1 / 8$ Sibling/Self-Cousins', we can determine that each of these noncondensed products condenses to the 9 (as each of the Sibling pairs Adds to the 9 , and " $9+9=18(9)$ ").

Variations on the behaviors which are displayed in relation to the previous example, most of which involve ascending and descending patterns, will be displayed in relation to all of the rest of the Cousin pairs (as well as the various Sibling pairs), which will be seen as we progress.

Next, we will perform similar 'Multiplication Functions' which involve multiple-digit representations of the 'Self-Sibling/Cousin 9', as is shown below.

| 9 X9 | $=81$ |  |
| :--- | :--- | :--- |
| 99 X99 | $=9801$ | $9 / 0$ |
| 999 X999 | $=998001$ | $9 / 0$ |
| 9999 X9999 | $=99980001$ | $9 / 0$ |
| 99999 X99999 | $=9999800001$ | $9 / 0$ |
| 999999X999999 | $=999998000001$ | $9 / 0$ |
| 9999999 X9999999 | $=99999980000001$ | $9 / 0$ |
| 99999999X99999999 | $=9999999800000001$ | $9 / 0$ |
| 99999999 X999999999 | $=999999998000000001$ | $9 / 0$ |
| 9999999999 X9999999999 | $=99999999980000000001$ | $9 / 0$ |

Above, we can see that all of these Functions yield non-condensed products which contain groups of Matching Numbers which involve the '9/0 Self-Sibling/Cousins', with the Quantities of Numbers which are contained within each of the groups of Matching Numbers Growing by one as the products progress (with these groups of Matching Numbers being highlighted arbitrarily in green and red, respectively). Also, we can see above that these groups of Matching Numbers are separated by a series of nonhighlighted 8's which form a diagonal line which runs through the center of all of the products, with this diagonal line of 8's displaying 'Sibling Mirroring' in relation to the diagonal line of non-highlighted 1 's which is oriented at the end of the products. (The instances of the ' $1 / 8$ Sibling/Self-Cousins' which are contained within these products display orientational Mirroring in relation to those which are contained within the products which are involved in the previous example.) While in this case, the groups of 9's and 0's Add to non-condensed sums whose condensed values display 'Self-Sibling/Cousin Mirroring' between one another, as is indicated to the far right of the products (with the condensed values of the non-condensed sums which are yielded by these groups of Matching Numbers all being highlighted in the same color code as the groups of Matching Numbers which yield them). Also, considering that each of these products is comprised of two groups of Numbers which condense to a pair of 'Self-Sibling/Cousins', along a pair of ' $1 / 8$ Sibling/Self-Cousins', we can determine that each of these non-condensed products condenses to the 9 , as was the case in relation to the previous example.

Next, we will perform similar 'Multiplication Functions' which involve multiple-digit representations of the members of the '1/8 Sibling/Self-Cousins', as is shown below.

| 1X8 | $=8$ | 8(8) |
| :---: | :---: | :---: |
| 11 X 88 | $=968$ | 23(5) |
| 111X888 | $=98568$ | 36(9) |
| 1111X8888 | =9874568 | 47(2) |
| 11111X88888 | =987634568 | 56(2) |
| 111111X888888 | $=98765234568$ | 63(9) |
| 1111111X8888888 | $=9876541234568$ | 68(5) |
| 11111111X88888888 | $=987654301234568$ | 71(8) |
| 111111111X888888888 | $=98765431901234568$ | 81(9) |
| 1111111111 X 8888888888 | $=9876543207901234568$ | 89(8) |
| 11111111111 X 88888888888 | $=987654320967901234568$ | 104(5) |
| 111111111111 X 888888888888 | =98765432098567901234568 | 117(9) |
| 1111111111111 X 8888888888888 | $=9876543209874567901234568$ | 128(2) |
| 11111111111111 X 88888888888888 | =987654320987634567901234568 | 137(2) |
| 111111111111111 X 888888888888888 | $=98765432098765234567901234568$ | 144(9) |
| 1111111111111111 X 8888888888888888 | $=9876543209876541234567901234568$ | 149(5) |
| 11111111111111111 X 88888888888888888 | $=987654320987654301234567901234568$ | 152(8) |
| 111111111111111111 X 888888888888888888 | =98765432098765431901234567901234568 | 162(9) |
| 1111111111111111111 X 8888888888888888888 | =98765432098765432079012345679012345 |  |
| 11111111111111111111 X 88888888888888888888 | =9876543209876543209679012345679012 | 568 |

Above, we can see that all of these Functions yield non-condensed products which display Fractal forms of behavior which involve multiple iterations of descending and ascending runs of Numbers, with these descending and ascending runs of Numbers being highlighted arbitrarily in red and green, respectively. These descending and ascending runs of Numbers are separated by Fractal lines of 0's and 9 's, respectively (all of which are highlighted in blue), with the line of 0's running vertically, and the line of 9's running diagonally (with the lines in both cases originating from the lone 9 which is oriented in the horizontal center of that particular product). Also, we can see in the chart which is shown above that the 9 's which begin the Fractal instances of lines are each preceded by a 1, with these nonhighlighted 1's displaying 'Sibling Mirroring' in relation to the non-highlighted 8's which are oriented at the end of each of the products. While we can also see above that these products condense to values which display a repeating, 'Self-Mirrored' pattern of $8,5,9,2,2,9,5,8, \ldots$ (as is shown to the right of the products), with this pattern involving members of the ' $2,5,8$ Family Group' which are separated into pairs by a series of 'Self-Sibling/Cousin 9's' (with these condensed values all being highlighted in a Family Group color code). (The condensed values of the products which are involved in the rest of the examples which will be seen in this section will all display similar Family Group behavior, which will be seen as we progress.) Also, we can determine that the non-condensed sums which are yielded by the Addition of the Numbers which are contained within each of these non-condensed products (all of which are shown to the right of the chart) display a ' $+8,+15,+13,+11,+9,+7,+5,+3,+10, \ldots$ Growth Pattern', which itself (with the exception of the " +8 " and the " +10 " Functions) displays a " -2 Reduction Pattern" in relation to its values of change. (In this case, the value of 8 is one Octave Lesser than the expected value of 17 , while the value of 10 involves the first Octave of the expected value of 1.) While we can also determine that the condensed values of the products which are involved in this example display a ' $-3,-5,-7,-9,-2,-4,-6,-8,-1, \ldots$ Reduction Pattern', which itself displays a ' +2 Growth Pattern' in relation to its values of change. (To clarify, a 'Reduction Pattern' is the opposite of a 'Growth Pattern'.)

Next, we will perform similar 'Multiplication Functions' which involve multiple-digit representations of the members of the ' $2 / 5$ Cousins', as is shown below.

| 2X5 | $=10$ | 1(1) |
| :---: | :---: | :---: |
| 22X55 | $=1210$ | 4(4) |
| 222X555 | $=123210$ | 9(9) |
| 2222X5555 | $=12343210$ | 16(7) |
| 22222X55555 | $=1234543210$ | 25(7) |
| 222222X555555 | $=123456543210$ | 36(9) |
| 2222222X5555555 | $=12345676543210$ | 49(4) |
| 22222222X55555555 | $=1234567876543210$ | 64(1) |
| 222222222X555555555 | $=123456789876543210$ | 81(9) |
| 2222222222X5555555555 | $=12345679009876543210$ | 82(1) |
| 22222222222X55555555555 | $=1234567901209876543210$ | 85(4) |
| 222222222222X555555555555 | $=123456790123209876543210$ | 90(9) |
| 2222222222222 X 5555555555555 | $=12345679012343209876543210$ | 97(7) |
| $22222222222222 \times 5555555555555$ | $=1234567901234543209876543210$ | 106(7) |
| $222222222222222 \times 55555555555555$ | $=123456790123456543209876543210$ | 117(9) |
| $2222222222222222 \times 555555555555555$ | $=12345679012345676543209876543210$ | 130(4) |
| 22222222222222222 X 5555555555555555 | $=1234567901234567876543209876543210$ | 145(1) |
| 222222222222222222 X 55555555555555555 | $=123456790123456789876543209876543210162(9)$ |  |
| 222222222222222222 X 555555555555555555 | $=12345679012345679009876543209876543210$ |  |
| $22222222222222222222 X 555555555555555555$ | =1234567901234567901209876543209876 | 3210 |

Above, we can see that all of these Functions yield non-condensed products which display Fractal behaviors which are similar to those which were seen in relation to the non-condensed products which are involved in the previous example, in that these products involve ascending and descending patterns (though in this case the patterns are occur in the order of ascending followed by descending, where as in relation to the previous example, the patterns occur in the order of descending followed by ascending). While we can also see above that these ascending and descending patterns (which are highlighted in green and red, respectively) are separated by Fractal rows of 9's and 0's, respectively (all of which are highlighted in blue). (These lines of 9's and 0's display Mirroring in relation to the lines of 9's and 0's which are contained within the products which are involved in the previous example, in that in this case, the vertical column involves 9's, while the diagonal line involves 0's, where as in relation to the previous example, the vertical column involves 0's, and the diagonal line involves 9's.) Also, we can see above that the condensed values of these products display a repeating, 'Self-Mirrored' pattern of $1,4,9,7,7,9,4,1, \ldots$ (as is shown to the right of the products), with this pattern involving members of the '1,4,7 Family Group' which are separated into pairs by a series of 'Self-Sibling/Cousin 9's' (with these condensed values all being highlighted in a Family Group color code). (The pattern which is displayed by the condensed values which are involved in this example displays 'Family Group Mirroring' in relation to the pattern which is displayed by the condensed values which are involved in the previous example. While these two condensed value patterns also display orientational Mirroring between one another, in that in this case, the Family Groups which comprise the pattern run forward then backward, where as in relation to the previous example, the Family Groups which comprise the pattern run backward then forward.) While we can also determine that the non-condensed sums which are yielded by that Addition of the Numbers which are contained within each of these non-condensed products (all of which are shown to the right of the chart) display a ' $+1,+3,+5,+7,+9,+11,+13,+15,+17, \ldots$ Growth Pattern', which itself displays a ' +2 Growth Pattern' in relation to its values of change. Also, we can determine that the condensed values of the products which are involved in this example display a ' $+3,+5,+7,+9,+2,+4,+6,+8,+1, \ldots$ Growth Pattern', which itself displays a ' +2 Growth Pattern' in relation
to its values of change (this 'Growth Pattern' involves values of change which display Matching in relation to those which are involved in the 'Reduction Pattern' which is displayed by the condensed values of the products which are involved in the previous example).

Next, we will perform similar 'Multiplication Functions' which involve multiple-digit representations of the members of the ' $4 / 7$ Cousins', as is shown below.

| 4X7 | $=28$ | 10(1) |
| :---: | :---: | :---: |
| 44X77 | $=3388$ | 22(4) |
| 444X777 | $=344988$ | 36(9) |
| 4444X7777 | $=34560988$ | $43(7)$ |
| 44444X77777 | $=3456720988$ | 52(7) |
| 444444X777777 | $=345678320988$ | 63(9) |
| 4444444X7777777 | = 34567894320988 | 76(4) |
| $44444444 \times 77777777$ | $=3456790054320988$ | 73(1) |
| 444444444 X 777777777 | $=345679011654320988$ | 81(9) |
| 4444444444 X 777777777 | $=34567901227654320988$ | 91(1) |
| 44444444444 X 77777777777 | $=3456790123387654320988$ | 103(4) |
| 444444444444 7 77777777777 | $=345679012344987654320988$ | 117(9) |
| $4444444444444 X 7777777777777$ | $=34567901234560987654320988$ | 124(7) |
| $44444444444444 X 77777777777777$ | $=3456790123456720987654320988$ | 133(7) |
| 444444444444444 X 77777777777777 | $=345679012345678320987654320988$ | 144(9) |
| 4444444444444444 X 777777777777777 | $=34567901234567894320987654320988$ | 157(4) |
| $44444444444444444 \mathrm{C77777777777777777}$ | $=3456790123456790054320987654320988$ | 154(1) |
| $444444444444444444 X 777777777777777777$ | $=34567901234567901165432098765432098$ | 162(9) |
| $4444444444444444444 X 7777777777777777777$ | $=3456790123456790122765432098765432098$ |  |
| $44444444444444444444 X 77777777777777777777$ | $=345679012345679012338765432098765432$ | 0988 |
| $444444444444444444444 \mathrm{C777777777777777777777}$ | $7=345679012345679012341876543209876543$ | 20988 |

Above, we can see that all of these Functions yield non-condensed products which display Fractal behaviors which are similar to those which were seen in relation to the non-condensed products which are involved in the previous two examples, in that these products involve ascending and descending patterns (which are highlighted arbitrarily in green and red, respectively) which are separated by rows of 9's and 0's, respectively (all of which are highlighted in blue). Also, we can see above that the products which are involved in this example contain non-highlighted runs of the Numbers $0,1,2,3$, and 4, with these runs of Numbers (two of which are flawed) occurring along with each new Fractal layer of ascending and descending patterns. (The fact that the third iteration of this diagonal run of ascending Numbers ends with the 1 (as opposed to the 4 ) indicates that there is some variation displayed between the iterations of these diagonal rows of ascending Numbers.) While we can also see above that the condensed values of these products display a repeating $1,4,9,7,7,9,4,1, \ldots$ pattern, with this pattern displaying Matching in relation to the pattern which is displayed by the condensed values of the products which are involved in the previous example. Also, we can determine that the non-condensed sums which are yielded by the Addition of the Numbers which are contained within each of these noncondensed products (all of which are shown to the right of the chart) display a ' $+10,+12,+14,+7,+9,+11$, $+13,-3,+8, \ldots$ Growth Pattern', which itself displays a flawed ' +2 Growth Pattern' variant in relation to its values of change. This ' +2 Growth Pattern' variant is flawed, in that the value of 7 is one Octave Lesser than the expected value of 16 , the value of 9 is one Octave Lesser than the expected value of 18, the value of 11 is one Octave Lesser than the expected value of 20, the value of 13 is one Octave Lesser than the expected value of 22 , and the value of 8 is two Octaves Lesser than the expected value of 26.

Then there is the the value of " -3 ", which is not an Octave of the expected value of 24 (though due to the concept of 'Sibling Similarity', the values of -3 and 24 display Matching between their condensed values). (It should be noted that this is our first example of a 'Growth Pattern' which involves a 'Negative Base Charged' addend among a majority of 'Positive Base Charged' addends.) Also, we can see above that the condensed values of the products which are involved in this example display a ' $+3,+5,+7,+9,+2,+4,+6,+8,+1, \ldots$ Growth Pattern', with this 'Growth Pattern' displaying Matching in relation to the 'Growth Pattern' which is displayed by the condensed values of the products which are involved in the previous example.

Next, we will perform similar 'Multiplication Functions' which involve multiple-digit representations of the members of the two Sibling pairs which have not already been examined as Cousins (these being the $2 / 7$ and $4 / 5$ Siblings). We will start by performing 'Multiplication Functions' which involve multiple-digit representations of the members of the ' $2 / 7$ Siblings', as is shown below. (These last two examples involve the only two instances of Sibling quirks which will be seen in this chapter.)

| 2X7 | $=14$ | 5(5) |
| :---: | :---: | :---: |
| 22X77 | $=1694$ | 20(2) |
| 222X777 | $=172494$ | 27(9) |
| 2222X7777 | $=17280494$ | 35(8) |
| 22222X77777 | $=1728360494$ | 44(8) |
| 222222X777777 | $=172839160494$ | 54(9) |
| 2222222X7777777 | $=17283947160494$ | 65(2) |
| 22222222X77777777 | $=1728395027160494$ | 68(5) |
| 222222222X777777777 | $=172839505827160494$ | 81(9) |
| 2222222222X7777777777 | $=17283950613827160494$ | 86(5) |
| 22222222222X77777777777 | $=1728395061693827160494$ | 101(2) |
| $22222222222 \times 777777777777$ | $=172839506172493827160494$ | 108(9) |
| $222222222222 \times 7777777777777$ | $=17283950617280493827160494$ | 116(8) |
| 2222222222222 X77777777777777 | $=1728395061728360493827160494$ | 125(8) |
| 22222222222222 X7777777777777 | $=172839506172839160493827160494$ | 135(9) |

Above, we can see that all of these Functions yield non-condensed products which involve ascending and descending patterns, each of which is intertwined (in that the ascending patterns are intertwined with one another, as are the descending patterns), with the two intertwined ascending patterns being highlighted arbitrarily in green and purple, and the two intertwined descending patterns being highlighted arbitrarily in red and blue. These intertwined patterns display a Fractal quality, as can be seen in relation to the last three products, all of which have the second instance of the intertwined ascending patterns highlighted in green and purple (this second instance of intertwined ascending patterns is not highlighted in relation to the previous five products). Also, we can see above that the condensed values of these products (all of which are shown to the right of the chart) display a repeating, 'Self-Mirrored' pattern of $5,2,9,8,8,9,2,5, \ldots$, with this pattern involving members of the ' $2,5,8$ Family Group' which are separated into pairs by a series of 'Self-Sibling/Cousin 9's' (with these condensed values all being highlighted in a Family Group color code). While we can determine that the non-condensed sums which are yielded by the Addition of the Numbers which are contained within each of these non-condensed products (all of which are shown to the right of the chart) display a $'+5,+15,+7,+8,+9,+10,+11,+3,+13, \ldots$ Growth Pattern', which itself displays a ' +1 Growth Pattern' in relation to the condensed values of its values of change (these being 5, 6, 7, 8, 9, 1, 2, 3, and 4). Also, we can determine that the condensed values of the products which are involved in this example display
a '-3,-2,-1,-0,-8,-7,-6,-5,-4,... Reduction Pattern', which itself displays a '-1 Reduction Pattern' in relation to its values of change.

Next, we will perform similar 'Multiplication Functions' which involve multiple-digit representations of the members of the ' $4 / 5$ Siblings', as is shown below.

| 4X5 | $=20$ | 2(2) |
| :---: | :---: | :---: |
| 44X55 | $=2420$ | 8(8) |
| 444X555 | $=246420$ | 18(9) |
| 4444X5555 | $=24686420$ | 32(5) |
| 44444X55555 | =2469086420 | 41(5) |
| 444444X555555 | =246913086420 | 45(9) |
| 4444444X5555555 | =24691353086420 | 53(8) |
| 44444444X55555555 | =2469135753086420 | 65(2) |
| 444444444X555555555 | $=246913579753086420$ | 81(9) |
| 4444444444X5555555555 | $=24691358019753086420$ | 83(2) |
| 44444444444X55555555555 | $=2469135802419753086420$ | 89(8) |
| 444444444444X555555555555 | $=246913580246419753086420$ | 99(9) |
| 4444444444444X5555555555555 | $=24691358024686419753086420$ | 113(5) |
| 44444444444444X55555555555555 | $=2469135802469086419753086420$ | 122(5) |
| 444444444444444 X 555555555555555 | $=246913580246913086419753086420$ | 126(9) |
| 4444444444444444 X 5555555555555555 | $=24691358024691353086419753086420$ | 134(8) |
| 44444444444444444 X 5555555555555555 | $=2469135802469135753086419753086420$ | 146(2) |
| 444444444444444444 X 55555555555555555 | $=246913580246913579753086419753086420$ |  |
| 4444444444444444444 X 5555555555555555555 | $=24691358024691358019753086419753086420$ |  |
| 44444444444444444444 X 5555555555555555555 | $5=24691358024691358024197530864197530864$ |  |

Above, we can see that all of these Functions yield non-condensed products which involve ascending and descending patterns (which are highlighted arbitrarily in green and red, respectively) which all involve generic ' +2 Growth Patterns' or ' -2 Reduction Patterns' (as opposed to the ' +1 Growth Patterns' and '-1 Reduction Patterns' which are involved in the ascending and descending patterns which have been seen in relation to the previous four examples). While in this case, these ascending and descending patterns are separated by lines of blue 9's and 0's on the first instances (respectively), and lines of non-highlighted 8's and 1's on the second instances (respectively), with this behavior repeating Fractally (and with the first instance of each of the rows of 8's and 1's having the 8 and the 1 separated by a blue 0 ). Also, we can determine that the non-condensed sums which are yielded by the Addition of the Numbers which are contained within each of these non-condensed products (all of which are shown to the right of the chart) display a repeating, 'Self-Mirrored' pattern of $2,8,9,5,5,9,8,2, \ldots$, with this pattern involving members of the '2,5,8 Family Group' which are separated into pairs by a series of 'Self-Sibling/Cousin 9's' (with these condensed values all being highlighted in a Family Group color code). (This $2,8,9,5,5,9,8,2, \ldots$ pattern displays 'Weak Mirroring' in relation to the $5,2,8,8,2,5, \ldots$ and $8,5,2,2,5,8, \ldots$ patterns which are displayed by the condensed values of products which are involved in the examples which involve the '2/7 Siblings' and the '1/8 Sibling/Self-Cousins', respectively.) While we can determine that the sums which are yielded by the Addition of the Numbers which are contained within each of these non-condensed products (all of which are shown to the right of the chart) display a ' $+2,+6,+10,+14,+9,+4,+8,+12,+16, \ldots$ Growth Pattern', which itself displays a flawed ' +4 Growth Pattern' in relation to its values of change. Also, we can determine that the condensed values of the products which are involved in this example display a ' $+6,+1,+5,+9,+4,+8,+3,+7,+2$ Growth Pattern', which itself displays a ' +4 Growth Pattern' in relation to its values of change.

That brings this section, and therefore this chapter, to a close.

