

Chapter 3: "Dividing by the 3"

In this chapter, we will Divide the 1 repeatedly by the 3, in order to examine the quotients which are yielded by one Cycle of nine of these 'Division Functions' (all of which are considered to be 'Invalid Functions'). The quotients which are yielded by these nine 'Division Functions' all involve 'Infinitely Repeating Decimal Numbers', each of which contains a unique (Infinitely repeating) 'Repetition Pattern', and it is these 'Repetition Patterns' which we will be working with in this chapter. (To clarify, the overall concept of 'Repetition Patterns' was explained in "Chapter Two", while the concept of Cycles will be seen in the second section of this chapter, and will be explained a bit more thoroughly in "Chapter 6: Dividing by the 6".)

We will start by examining the first iteration of the Function of "1/3", which is shown below.

$$1/3 = .333\dots$$

Above, we can see that the Function of "1/3" yields an 'Infinitely Repeating Decimal Number' quotient which contains a single-digit 'Repetition Pattern' which consists of a lone 3, which means that this 'Repetition Pattern' condenses to the 3. The Infinitely repeating 'Repetition Patterns' which are contained within these 'Infinitely Repeating Decimal Number' quotients will each be shown through three iterations (as is the case above), with the first iteration highlighted arbitrarily in red, and the second two non-highlighted iterations of the longer 'Repetition Patterns' separated by a "(*)", for clarity, as was explained in "Chapter Two". (In this case, the 'Repetition Pattern' is simply a lone 3, which is highlighted once in red, and then shown twice more in black.)

Next, we will examine the second iteration of the Function of "1/3", which is shown below. (To clarify, the second iteration of the Function of "1/3" can also be considered to be the Function of ".333.../3", "1/3/3", or "1/9", as all three of these Functions yield the same quotient.)

$$.333\dots/3 = .111\dots$$

Above, we can see that this Function yields an 'Infinitely Repeating Decimal Number' quotient which contains a single-digit 'Repetition Pattern' which consists of a lone 1, and therefore condenses to the 1.

Next, we will examine the third iteration of the Function of "1/3", which is shown below (with this Function being equivalent to the Function of "1/27").

$$.111\dots/3 = .037037037\dots$$

Above, we can see that this Function yields an 'Infinitely Repeating Decimal Number' quotient which contains a 'Repetition Pattern' which contains three digits. Though while this 'Repetition Pattern' contains a Quantity of digits which is three times Greater than the Quantity of digits which is contained within the 'Repetition Pattern' which was seen in relation to the previous example (in that "3X1=3"), this 'Repetition Pattern' is still equal to the previous 'Repetition Pattern' in terms of its condensed value (as "0+3+7=10(1)"). This condensed value of 1 indicates that these 'Repetition Patterns' display a sub-pattern which involves the fact that they each Add to a non-condensed value which condenses to the 1

(with the exclusion of the first of these examples, which involves a 'Repetition Pattern' which condenses to the 3). (This sub-pattern will be tracked as we progress.) Also, it should be noted that this 037... 'Repetition Pattern' involves a very basic example of the 'Connection Between The 7 And The 3,6,9 Family Group', in that it contains the 3 and the 7 (along with the 0).

Next, we will examine the fourth iteration of the Function of " $1/3$ ", which is shown below (with this Function being equivalent to the Function of " $1/81$ ").

$$.037037037.../3 = .012345679012345679(*)012345679...$$

Above, we can see that the 'Repetition Pattern' which is contained within this 'Infinitely Repeating Decimal Number' quotient contains nine digits, which means that this 'Repetition Pattern' contains a Quantity of digits which is three times Greater than the Quantity of digits which is contained within the 'Repetition Pattern' which was seen in relation to the previous example (in that " $3 \times 3 = 9$ "). This indicates that the Quantities of digits which are contained within these 'Repetition Patterns' display an 'X3 Growth Pattern' (with the exclusion of the first two of these 'Repetition Patterns', each of which contains one digit). At this point, this 'X3 Growth Pattern' involves the Growth of one digit to three digits (which involves the Function of " $1 \times 3 = 3$ "), and then of three digits to nine digits (which involves the Function of " $3 \times 3 = 9$ "). This means that we would expect the next 'Repetition Pattern' to contain twenty-seven digits, as " $9 \times 3 = 27$ ". (This 'X3 Growth Pattern' involves a variation on the overall concept of 'Growth Patterns', which will be seen in various forms throughout these chapters, and will always involve regular, patterned forms of Growth.) Also, we can determine that this 'Repetition Pattern' Adds to a non-condensed sum of 37, with this non-condensed sum involving another example of the 'Connection Between The 7 and the 3,6,9 Family Group', in that the multiple-digit Number 37 is comprised of the 3 and the 7. While the non-condensed sum of 37 condenses to the 1, with this condensed value of 1 confirming the condensed 1 sub-pattern which is displayed by the non-condensed sums of these 'Repetition Patterns'. (As was mentioned a moment ago, this condensed 1 sub-pattern does not involve the first of these examples, which involves a 'Repetition Pattern' which condenses to the 3.) This 012345679... 'Repetition Pattern' (which involves a complete, ordered 'Base Set', only without the 8) will be seen a few times as we work our way through these chapters, and will be examined more thoroughly in "Chapter 3.3: Progressive Patterns".

(Also, it should be noted that the example which is seen above involves a 'Repetition Pattern' which contains a Quantity of nine digits. This 'Quantity Of Nine' indicates another of the sub-patterns which are displayed by this Cycle of iterations, in that all of the quotients which will be examined throughout the remainder of this chapter will contain 'Repetition Patterns' which contain a Quantity of digits which condenses to the 9. This is due to the fact that any 'Multiplication Function' which involves at least one factor which condenses to the 9 will invariably yield a product which condenses to the 9. (In this case, the factor of 9 will yield a product of 27 via the previously established 'X3 Growth Pattern', in that " $9 \times 3 = 27(9)$ ".) This behavior arises as a result of the "Attractive" characteristic which the 9 displays in relation to the 'Multiplication Function', as will be explained in upcoming Standard Model of Physics themed chapters, as well as in "Chapter Eight: Solving the Invalid Functions".)

Next, we will examine the fifth iteration of the Function of " $1/3$ ", which is shown below (with this Function being equivalent to the Function of " $1/243$ "). (Due to spatial constraints, from this point on, the diagrams will only display the 'Infinitely Repeating Decimal Number' quotients, and not the Functions which yield them.)

.004115226337448559670781893004115226337448559670781893(*)004115226337448559670781893...

Above, we can see that this 'Repetition Pattern' 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', in that " $9 \times 3 = 27$ ". While this 'Quantity Of Twenty-Seven' also maintains the condensed 9 sub-pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', as " $2 + 7 = 9$ ". Also, we can determine that this 'Repetition Pattern' Adds to a non-condensed sum of 118, which condenses to the 1, with this condensed value of 1 maintaining the previously established condensed 1 sub-pattern which is displayed by the non-condensed sums of these 'Repetition Patterns'.

Next, we will examine the sixth iteration of the Function of " $1/3$ ", which is shown below (with this Function being equivalent to the Function of " $1/729$ "). (In this example, only two iterations of the 'Repetition Pattern' are shown, due to spatial constraints.)

.001371742112482853223593964334705075445816186556927297668038408779149519890260631001371742112482853223593964334705075445816186556927297668038408779149519890260631...

Above, we can see that this 'Repetition Pattern' 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', in that " $27 \times 3 = 81$ ". While this 'Quantity Of Eighty-One' confirms the condensed 9 sub-pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', in that " $8 + 1 = 9$ ". Also, we can determine that this 'Repetition Pattern' Adds to a non-condensed sum of 361, which condenses to the 1, with this condensed value of 1 maintaining the previously established condensed 1 sub-pattern which is displayed by the non-condensed sums of these 'Repetition Patterns'.

Next, we will examine the seventh iteration of the Function of " $1/3$ ", which is shown below (with this Function being equivalent to the Function of " $1/2187$ "). (In this example, only two iterations of the 'Repetition Pattern' are shown, due to spatial constraints.)

.000457247370827617741197988111568358481938728852309099222679469593049839963420210333790580704160951074531321444901691815272062185642432556012802926383173296753543667123914037494284407864654778235025148605395518975765889346136259716506630086877000457247370827617741197988111568358481938728852309099222679469593049839963420210333790580704160951074531321444901691815272062185642432556012802926383173296753543667123914037494284407864654778235025148605395518975765889346136259716506630086877...

Above, we can see that this 'Repetition Pattern' 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', in that " $81 \times 3 = 243$ ". While this 'Quantity Of Two Hundred And Forty-Three' maintains the previously established condensed 9 sub-pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', in that " $2 + 4 + 3 = 9$ ". Also, we can determine that this 'Repetition Pattern' Adds to a non-condensed sum of 1090, which condenses to the 1, with this condensed value of 1 maintaining the previously established condensed 1 sub-pattern which is displayed by the non-condensed sums of these 'Repetition Patterns'.

Next, we will examine the eighth iteration of the Function of "1/3", which is shown below (with this Function being equivalent to the Function of "1/6561"). (In this example, only one iteration of the 'Repetition Pattern' is shown, due to spatial constraints.)

.0001524157902758725803993293705227861606462429507696997408931565310166133211400701
 11263526901386983691510440481633897271757354061880810852004267642127724432251181222
 37463801249809480262155159274500838286846517299192196311537875323883554336229233348
 57491236092059137326627038561194939795762841030330742264898643499466544734034445968
 60234720317024843773814967230605090687395214144185337600975461057765584514555707971
 34583142813595488492607834171620179850632525529644871208657216887669562566681908245
 69425392470659960371894528273129096174363664075598231976832799878067367779301935680
 53650358177107148300563938424020728547477518670934308794391098917847889041304679164
 761469288218259411675049535131839658588629782045419905502210028959...

Above, we can see that this 'Repetition Pattern' contains seven hundred and twenty-nine digits, with this 'Quantity Of Seven Hundred And Twenty-Nine' maintaining the 'X3 Growth Pattern' which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', in that "243X3=729". While this 'Quantity Of Seven Hundred And Twenty-Nine' maintains the previously established condensed 9 sub-pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', in that "7+2+9=18(9)". Also, we can determine that this 'Repetition Pattern' Adds to a non-condensed sum of 3277, which condenses to the 1, with this condensed value of 1 maintaining the previously established condensed 1 sub-pattern which is displayed by the non-condensed sums of these 'Repetition Patterns'.

Next, we will examine the ninth iteration of the Function of "1/3", which is shown below (with this Function being equivalent to the Function of "1/19683"). (In this example, only one iteration of the 'Repetition Pattern' is shown, in a slightly smaller font, due to spatial constraints.)

.0000508052634252908601331097901742620535487476502565665802977188436722044403800233704211756337956612305034801
 60544632423919118020626936950668089214042574810750393740791546004166031600873850530915002794289488390997307321
 03845958441294518112076411161916374536401971244220901285373164659858761367677691408829954783315551491134481532
 286744906772341614591271655743535030229131738048061779200325153685921861504851902657115277142711984961642026113
 9054005995021084184321495706955240562922318752227302748564751308235533201239648427577096987247878880251994106
 58944266626022455926433978560178834527257023827668546461413402428491591728903114362647970329726159630137682263
 8825382309607275313722501651171061321952954326068180663516740334298633384138596758624193466443123507595386882
 08098358989991363105217700553777371335670375450896712899456383681349387796575725245135396027028400142254737590
 81440837270741248793374993649342071838642483361276228217243306406543717929177462785144540974444952497078697353
 04577554234618706497993192094701011024742163288116648884824467814865620078240105674947924604989076868363562465
 07138139511253365848701925519483818523599044861047604531829497535944723873393283544175176548290402885738962556
 52085556063608189808464156886653457298176091043032058121221358532743992277599959355789259767311893512167860590
 35716100187979474673576182492506223644769598130366305949296347101559721587156429406086470558349845043946552862
 87659401513996850073667631966671747193009195752679977645684092872021541431692323324696438551033887110704669003
 70878423004623278971701468272112990905857846872936036173347558807092414774170604074582126708326982675405171975
 81669460956155057663973987705126251079611847787430777828583041203068637910887567952039831326525428034344358075
 49662144998221815780114819895341157343900828125793832241020169689579840471472844586699182035258852817151856932
 37819438093786516283086927805720672661687750850988162373621907229588985418889396941523141797490219986790631509
 42437636539145455469186607732561093329268912259310064522684550119392369049433521312808006909515825839556978102
 931463699639282629680434893054920489762739419803891683178377279886196209927348473301834070009653...

Above, we can see that this 'Repetition Pattern' contains two thousand one hundred and eighty-seven digits, with this 'Quantity Of Two Thousand One Hundred And Eighty-Seven' maintaining the 'X3 Growth Pattern' which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', in that "729X3=2187". While this 'Quantity Of Two Thousand One Hundred And

Eighty-Seven' maintains the previously established condensed 9 sub-pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', in that "2+1+8+7=18(9)". Also, we can determine that this 'Repetition Pattern' Adds to a non-condensed sum of 9838, which condenses to the 1, with this condensed value of 1 maintaining the previously established condensed 1 sub-pattern which is displayed by the non-condensed sums of these 'Repetition Patterns'.

That completes the first section of this chapter, which involved an examination of the first Cycle of nine iterations of the Function of "1/3". This 'Cycle Of Nine' is typical, in that most Cycles involve a Quantity which condenses to a member of the '3,6,9 Family Group' (this characteristic will be seen again in upcoming chapters, including "Chapter 6: Dividing by the 6"). (While a representative sample of the second Cycle of nine iterations of the Function of "1/3" will be examined in the third section of this chapter.)

Next, we will examine all of the previously established sub-patterns which are displayed by this Cycle of nine iterations of the Function of "1/3", as well as one other sub-pattern which we have not yet noted, all of which are shown and explained below. (The chart which is seen below involves an arbitrary color code which is explained below the chart.)

iteration	Quantity of digits	non-condensed value	condensed value	alt. Function
1	1	3	3	1/3 (None)
2	1	1	1	1/9
3	3	10	1	1/27
4	9	37	1	1/81
5	27	118	1	1/243
6	81	361	1	1/729
7	243	1090	1	1/2187
8	729	3277	1	1/6561
9	2187	9838	1	1/19683

Above, on the far-right side of the chart, we can see that the divisors which are involved in the alternate Functions (all of which are highlighted in purple) display a simple 'X3 Growth Pattern', in that each of these divisors is three times Greater than the previous divisor. This is a simple and expected sub-pattern, one which will obviously continue on to Infinite iterations. While to the left side of the chart, we can see that the Quantities of digits which are contained within each of the 'Repetition Patterns' (all except for the first of which are highlighted in red) also display an 'X3 Growth Pattern', which at this point, is assumed to continue on to Infinite iterations. Though it should be noted that the value which is yielded in relation to the first iteration of the Function of "1/3" is disregarded in relation to this sub-pattern, as will also be the case in relation to the next two of these sub-patterns. (This currently unexplained characteristic will also be displayed by a few of the sub-patterns which will be seen in upcoming chapters.) Next, to the right side of the chart, we can see that the condensed values of each of the 'Repetition Patterns' (all except for the first of which are highlighted in green) display a sub-pattern which exclusively involves the 1. Then, in the center of the chart, we can see that the non-condensed values of each of the 'Repetition Patterns' (all except for the first of which are highlighted in blue) display an interesting variation on an 'X3 Growth Pattern' which has not yet been noted, and which is explained below.

The non-condensed value of the first of these 'Repetition Patterns' is 3, and the Multiplication of this non-condensed value of 3 by the 3 yields a product of 9. Though the non-condensed value of the second of these 'Repetition Patterns' is 1, which is 8 Lesser than the assumed value of 9. Next, the Multiplication of the non-condensed value of 1 by the 3 yields a product of 3. Though the non-condensed value of the third of these 'Repetition Patterns' is 10, which is 7 Greater than the assumed value of 3. Next, the Multiplication of the non-condensed value of 10 by the 3 yields a product of 30. Though the non-condensed value of the fourth of these 'Repetition Patterns' is 37, which is 7 Greater than the assumed value of 30. Next, the Multiplication of the non-condensed value of 37 by the 3 yields a product of 111. Though the non-condensed value of the fifth of these 'Repetition Patterns' is 118, which is 7 Greater than the assumed value of 111. Next, the Multiplication of the non-condensed value of 118 by the 3 yields a product of 354. Though the non-condensed value of the sixth of these 'Repetition Pattern' is 361, which is 7 Greater than the assumed value of 354. These "+7" variations on an 'X3 Growth Pattern' continue on in this manner, and collectively yield the 'X3 Growth Pattern' variant which is shown below. (In the diagram which is shown below, the individual variations of "+7" are all highlighted in green. While as was mentioned a moment ago, this 'X3 Growth Pattern' variant lacks the involvement of the value which is yielded in relation to the first iteration of the Function of "1/3".)

X3	3	- 8
	1	+7
	10	+7
	37	+7
	118	+7
	361	+7
	1090	+7
	3277	+7
V	9838	+7

The 'Growth Pattern' which is seen above involves a variation on a basic 'X3 Growth Pattern', and is therefore considered to be an 'X3 Growth Pattern' variant, one which involves a concurrent '+7 Growth Pattern' which may or may not continue on to Infinite iterations. (Either way, this combination of "+7" and "X3" is another example of the 'Connection Between The 7 And The 3,6,9 Family Group'.)

That brings this section to a close. Though it should be noted at this point that the first Cycle of nine iterations of the Function of "1/6" displays sub-patterns which are similar to those which were examined in this section (including another 'X3 Growth Pattern' variant), as will be seen in "Chapter 6: Dividing by the 6".

Next, we will attempt to examine another Cycle of nine iterations of the Function of "1/3". Though unfortunately, the 'Infinitely Repeating Decimal Number' quotients which are yielded by the tenth through eighteenth iterations of the Function of "1/3" would be far too cumbersome for us to examine in this chapter. Therefore, we will just examine an eighty-one digit representative sample of the 'Infinitely Repeating Decimal Number' quotient which is yielded by the tenth iteration of the Function of "1/3", which is shown below. (To clarify, the 'Infinitely Repeating Decimal Number' quotient which

is shown below is yielded by the tenth iteration of the Function of "1/3", which is equivalent to the Function of "1/59049".)

.000016935087808430286711036596724754017849582550085522193432572947890734813460007.....

Above, we see a representative sample of the first iteration of the 'Repetition Pattern' which is contained within the 'Infinitely Repeating Decimal Number' quotient which is yielded by the tenth iteration of the Function of "1/3". This complete 'Repetition Pattern' contains six thousand five hundred and sixty-one digits, with this 'Quantity Of Six Thousand Five Hundred And Sixty-One' maintaining the 'X3 Growth Pattern' which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', in that "2187X3=6561". While this 'Quantity Of Six Thousand Five Hundred And Sixty-One' also maintains the previously established condensed 9 sub-pattern which is displayed by the Quantities of digits which are contained within these 'Repetition Patterns', in that "6+5+6+1=18(9)". Though unfortunately, we will not be able to determine whether or not this 'Repetition Pattern' maintains the previously established condensed 1 sub-pattern which is displayed by the non-condensed sums of these 'Repetition Patterns', as it would be prohibitively difficult to determine the sum which is yielded by the Addition of the six thousand five hundred and sixty-one digits which are contained within this 'Repetition Pattern'.

It should also be mentioned that the Quantity of digits which are contained within the 'Repetition Pattern' which is partially represented above (this being six thousand five hundred and sixty-one) involves the product which is yielded by the Function of 81 "Squared" (in that "81X81=6561"), with 81 being the product which is yielded by the Function of 9 Squared (in that "9X9=81"). The multiple-digit Number 6561 was seen earlier in this chapter (as the divisor which is involved in the alternate Function of the eighth iteration of "1/3"), and will be seen again in an upcoming chapter, in relation to an unrelated Function. Also, the divisor which is involved in the alternate Function of the tenth iteration of "1/3" (this being 59049) involves the product which is yielded by the Function of 243 Squared (in that "243X243=59049"), with 243 being the product which is yielded by the Function of "81X3". All of these somewhat irrelevant interrelations have to do with these Quantities and multiple-digit Numbers all having been yielded by various 'X3 Growth Patterns', which means that all of these multiple-digit Numbers are "Multiples Of The 3".

(To clarify, the term *Square* refers to a Quantum Mathematical concept which is similar to the traditional mathematical concept of a square. Though it should be noted that in terms of Quantum Mathematics, the act of Squaring a Number involves the Multiplication of the Quality of a Number by a Matching Quantity. While the term *Multiples* will be seen again in a few of the upcoming chapters, and also refers to a Quantum Mathematical concept which is similar to the traditional mathematical concept of a multiple.)

That brings this section, and therefore this chapter, to a close. Though 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 "1/3", the "Progressive Patterns" which are contained within these individual 'Repetition Patterns', and the many sub-patterns which are displayed by these individual 'Progressive Patterns' will all be examined in "Chapter 3.3: Progressive Patterns", which is the first of the two sub-chapters of this parent chapter.