Data Integrity Patterns of The Torah

A tale of Prime, Perfect and Transcendental numbers

For verily I say unto you,
Till heaven and earth pass,
one jot or one tittle shall in no wise pass from the law(of Moses),
till all be fulfilled.
Matthew 5:18 (KJV).

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About this document

The intention of this document is to show that there could be several ways of demonstrating that each book of the Torah has remained exactly the correct length since its original transcription by Moses about 3,500 years ago.

It cannot be proved conclusively that each book has passed the test of time without some slight errors creeping in but there is a significant amount of mathematical evidence to suggest it is possible.

It is plain that Perfect, Prime and Transcendental Numbers were used as well as several elegant formulae and it is amazing that the originator of the Torah apparently knew PI to at least 500,000 digits.

This document is not intended as a complete work but more of a basis from which further research can be initiated.

Glossary

Katadrome:	A number with digits in strictly decreasing sequence.
Metadrome:	A number with digits in strictly ascending sequence.
Mirror Numbers:	A pairs of numbers where one is the reverse of the other.
Perfect Number:	A number that is equal to the sum of its proper divisors.
Prime Number:	A number that is only divisible by one and itself.
Sepher Yetzirah:	The Book of Creation. A kabbalistic teaching attributed to Abraham.
The Torah:	The first five books of the Hebrew Bible.

Introduction

This is a story that was inspired by *Kabbalah and Jewish Mystical Traditions*, a course I attended at The University of Melbourne during the Second Semester of 2001.

During the course, I wrote a paper titled *The Computer as a Tool in Kabbalah* in which I examined the occurrences of Makhshev, the Hebrew word for Computer, in the text of Genesis.

So intense was my interest that the paper sparked off several years of in-depth investigation of some of the more enigmatic aspects of the Koren edition of the Hebrew text of the Torah.

And, if its implications are true, the story that follows is truly earth-shattering.

Checksums, the guardians of data integrity

If you write a document and send it via e-mail, how do you know the message arrived at its destination uncorrupted by error? In the computer age, it is simple. You just need to create a checksum for the file you are sending. If the checksum of the received file does not match that of the sent file, then you know something has gone wrong.

What most people do not realise is that every packet of information sent via the Internet has a checksum, the same as each and every sector on the hard drive of your PC. Checksums are those invisible attributes which monitor the integrity of nearly every operation you perform on your computer.

Checksums count the values of each character in a computer file so the file can later be checked to ensure that it conforms to its original checksum. Variances do exist in implementations but the purpose is the same. In the computer age, checksums are the unseen guardians of data integrity.

More than 3,500 years ago, the luxury of computers did not exist so what could you have done if you planned to write a document which had to be completely error free. Your only option was to use known mathematical markers in the hope that someone down the line would pick up on them and recognise them. You could perhaps use several different schemes concurrently just to prove without a doubt that the content was correct at a later date.

Background

In the last few years, there has been some discussion about hidden codes in the Hebrew text of the

Torah and many claims and counterclaims have been made about the validity of those codes. In this document, the mathematical structure of the Torah is examined to determine if there are any obvious patterns that point to a method of checking its integrity for letter accuracy and book length.

The three items of most interest to us are the *Hebrew Alphabet*, the *Torah* and the *Sepher Yetzirah* (Book of Creation).

The Hebrew Alphabet and Gematria

Hebrew is a language that is written from right to left and the Hebrew alphabet consists of 22 letters. Five of those letters have a 'final' variant which is used when one of those letters is the last letter of a word.

Gematria is a scheme whereby a Hebrew letter is assigned a number and there are a few methods of assigning numbers to letters. One of the most common is the 'Absolute Value' method, the mapping of which is shown below. In this document that method is used exclusively.

א	Alef	1	י	Yud	10	ע	Ayin	70
ב	Beit	2	כ	Kaf	20	פ	Pei	80
ג	Gimmel	3	ך	Kaf-final	20	ף	Pei-final	80
ד	Dalet	4	ל	Lamed	30	צ	Tzadik	90
ה	Hei	5	מ	Mem	40	ץ	Tzadik-final	90
ו	Vav	6	ם	Mem-final	40	ק	Kuf	100
ז	Zayin	7	נ	Nun	50	ר	Reish	200
ח	Chet	8	ן	Nun-final	50	ש	Shin	300
ט	Tet	9	ס	Samech	60	ת	Tav	400

Table 1. *Absolute Value Letter Mapping*

The Torah

In this section, some of the aspects of the Torah that are pertinent to this document are examined.

The Origin of the Torah

The Torah consists of the first five books of the Bible. Unlike other inspired scriptures, the five books are said to have been dictated directly to Moses by God in a letter by letter sequence. Since its origin and first transcription, the Torah has been carefully copied. Each Torah scroll is copied by

hand from an earlier scroll with the admonition that: "Should you perchance add or omit one single letter from the Torah, you would thereby destroy all the universe."

What is it that makes this precise letter sequence so important and, further, can we show that this letter sequence has been maintained for more than 3,500 years?

The Gematria of the Torah

As mentioned earlier, the Torah consists of five books and, using a computer to examine the books, we can derive the following information.

Book	Length	Gematria Value
Genesis	78064	5106274
Exodus	63529	4639025
Leviticus	44790	3137240
Numbers	63530	4350277
Deuteronomy	54892	3777010

Table 2. *Absolute Gematria Values for the Five Books of the Torah*

The Sepher Yetzirah

Overview

The Sepher Yetzirah, or Book of Creation, is the transcription of a teaching that is attributed to the Patriarch Abraham. It is outside the scope of this document to debate the nature of the transcript's origin therefore it focuses only on its teaching.

For the purpose of this document, we will concentrate on the separation of the 22 letters of the Hebrew Alphabet into 3 mothers, 7 doubles and 12 elementals. This division of letters is said to parallel the text of Genesis 1. "God made" appears 3 times and parallels the Three Mothers. "God saw" appears 7 times and parallels the Seven Doubles. The remaining number of times where the name of God appears, with the exception of "God said", is 12. The names parallel the 12 Elementals. The phrase "God said" appears 10 times and is said to parallel the 10 Sefirot which are outside the scope of this document.

Note here that, traditionally, the "God said" in Genesis 1:28 is actually referred to as an Elemental. Genesis 1:1 is considered to have an inferred saying and classes as one of the 10 Sayings.

3, 7, 12 and PI

As we work though this document, it becomes apparent that the 3, 7, 12 numbering is of great importance to the patterns we examine.

The 3,7,12 sequence is called a triangle series. It breaks down to 3, 3+4 and 3+4+5. Note that not only does 5 become the final number in this series but it also corresponds to the number of letters with a final variant in the Hebrew Alphabet.

It is relatively simple to work out that this sequence can be made into a trivial approximation of PI. Noting that there are 7 doubles we will use 7 twice in this example:

$$(3+7+12)/7 = 3.142857 \approx \pi.$$

Reversing the sequence and adding a decimal point, we get 1.273. Mathematicians will immediately notice that this is a close approximation to the difference in area between a square and its inscribed circle. The actual value to 10 decimal places is 1.2732395447 with 1.273 representing a difference of less than 2 parts in 10,000.

So, just how close can we get using the numbers 3, 7 and 12 to a multiple or power of PI. The best formula I know of for this is:

$$3*3*3*3 + \{(12+7) * (12+7)/ (3+7+12)\} \text{ which is approximately equal to } \pi^4.$$

The fourth root of the equation above gives the value 3.1415926525 whereas PI, to the same precision, is 3.1415926535. This approximation is accurate to 8 decimal places or closer than 1 part in 3,000,000,000 to the true value of PI!

It is at this stage that we may possibly start to get an insight into the reason for the 3, 7, 12 organisation of the Hebrew alphabet.

Computers in Genesis

Previously I reasoned that if the Torah was truly coded so that a computer could be used to unlock either some or all of its code, then the Hebrew word for Computer, מחשב or Makhshev, should appear somewhere in its text. For this experiment I searched through the text of Genesis for any occurrences of the word. It is important to note, for the purpose of this experiment, I ignored all white space and punctuation in the text, consistent with the letter by letter dictation of the Torah to Moses.

The results were surprising in more ways than one. There were three occurrences of Makhshev in Genesis as shown in the table below.

Instance	Numeric position in text	Chapter/Verse/Letter
1	7088	6/5/31
2	77684	50/20/4
3	77700	50/20/20

Table 3. *Occurrences of* מחשב*, or* **Makhshev,** *in Genesis*

There are two things that directly come to mind. Firstly the digits which comprise the location of any occurrence of Makhshev are only those that appear in the length of the Genesis text itself, namely 78064. The second thing to notice is the series of sevens. The first find is preceded with one seven, the second two and the third three.

It is not a great step from here using only sevens and the position of the third Makhshev, to realise that the text of Genesis, at 78064, is exactly equal to $77700 + (7*7*7) + (7+7+7)$.

It can also be noticed that the last two occurrences of Makhshev appear within 16 characters of each other in the text of Genesis 50:20. At this point, we take note of the text of this verse since, strangely enough, we end up here by a totally different and unrelated method. The highlighted text below relates to the Hebrew term Makhshev, or computer.

ואתם חשבתם עלי רעה אלהים חשבה
לטבה למען עשה כיום הזה להחית
עם־רב:

And as for you, ye meant evil against me; but God meant it for good, to bring to pass, as it is this day, to save much people alive.

The Beginning is in the End

You ask me where to begin
[...]
And if you're asking me when
I'll say it starts at the end.
　　　Jon Anderson and Vangelis *"I'll find my way home".*

Chapter 1, Verse 7 of the Sepher Yetzirah states: "Their end is embedded in their beginning and their beginning in their end."

This is nowhere more apparent than in the first verse of Genesis and the Gematria count of Deuteronomy.

The Beginning: Genesis Chapter 1 Verse 1

Our journey of investigation into mathematical patterns in the Torah starts, appropriately enough, with the first verse of Genesis.

בראשית ברא אלהים את השמים ואת הארץ:

A close look shows that we have a sentence of 7 words and 28 characters. The first word is 6 letters long.

This leads us to our first mathematical find. The numbers 6 and 28 are the first two "Perfect Numbers" in a sequence of which only a few are known. The first 6 in the sequence of perfect numbers are:

6, 28, 496, 8128, 33550336, 8589869056

Perfect Numbers are those that are equal to the sum of their proper divisors. ie 6 is the sum of 1+2+3 and 28 the sum of 1+2+4+7+14.

Note that the 22 letters of the Hebrew Alphabet represents the difference between the first two perfect numbers: 28 – 6 = 22.

One of the properties of Perfect Numbers is that they are triangular which is demonstrated below by a representation of the first verse of Genesis in a triangular form. You can see that the first word of six letters forms a sub-triangle on the top of the main one.
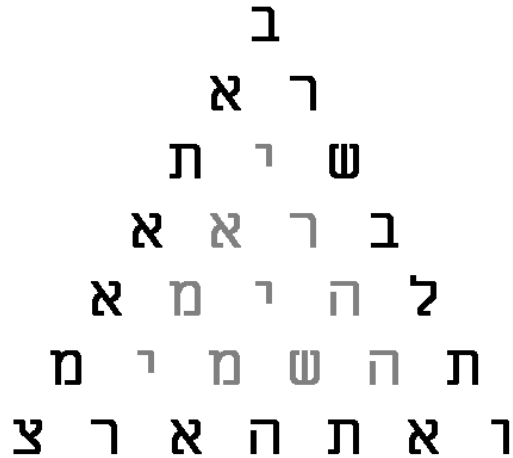
ב

ר א

ת י ש

א ר ב א

ל ה י מ א

ת ה ש מ י מ

ר א ת ה א ר צ

Figure 1. *The text of Genesis 1:1 as a triangle.*

Looking at the picture, we can see that the first word forms a triangle with each side having 3 letters. However, the first verse forms a triangle with 7 letters per side. We can also see that there is an inner triangle (shown as grey letters) within the main triangle. This inner triangle contains 10 letters, 10 also being the sum of 3 and 7.

Already we are seeing a pattern that conforms to the teaching of the Sepher Yetzirah, 3 for the number of Mothers, 7 for the number of Doubles and 10 for the number of Sayings.

Let us just look at what we have in a pattern that we will revisit shortly. A triangle which has 3 sides of 7 and which encloses a triangle of 10.

The End: Deuteronomy

We saw earlier in the 'Gematria of the Torah' section that adding all the characters in Deuteronomy gives us the value of 3,777,010. To get to this number, we are truly at 'the end' of the Torah since now we have counted every character in its last book.

Note that we can see the distinct resemblance to the first verse of Genesis which, as we saw above, forms a triangle of 3 sides of 7 (7, 7 and 7), enclosing a triangle of 10. Just look at the numbers here, 3, 777 and 10. Adding a leading zero to the 10, which does not change its value, we get 010, a trivial transformation to arrive again at 3, 777, 010.

Another correspondence between the first verse of Genesis and the book of Deuteronomy is the sum of the digits that comprise the length of Deuteronomy. It can be seen that the length, at 54892,

reduces to 5+4+8+9+2 which equals 28, this being the number of characters in the first verse of Genesis.

So, are the first verse of Genesis and the Gematria sum of Deuteronomy related? Is the beginning embedded in the end and the end in the beginning as stated by the Sepher Yetzirah? It certainly seems to be.

The Genesis 50:20 Enigma

There is a trivial calculation that can be performed on the lengths of the five books that comprise the Torah and that is to add and reduce the digits of each book individually.

The result is shown below:

Book	Length	Reduction	Result
Genesis	78064	7+8+0+6+4 = 25, 2+5=7	7
Exodus	63529	6+3+5+2+9 = 25, 2+5 = 7	7
Leviticus	44790	4+4+7+9+0 = 24, 2+4 = 6	6
Numbers	63530	6+3+5+3+0 = 17, 1+7 = 8	8
Deuteronomy	54892	5+4+8+9+2 = 28, 2+8 = 10, 1+0 = 1	1

Table 4. *Calculation on the lengths of the books of The Torah*

From the 'Computers in Genesis' experiment, we can see that 77681 is remarkably close to one of the two occurrences of Makhshev (computer) in Genesis, being only 3 letters away from the occurrence at 77684. This closeness calls for further investigation which shows us that letter 77681 in the Torah is the first letter of Genesis 50 verse 20.

At this point, things start to get interesting. Bearing in mind that the original Torah was transcribed without any vowel markings, we can read the first four words of a verse in the following ways:

Normal Reading:

ואתם חשבתם עלי רעה

And as for you, ye meant evil against me;

Modified Reading: Dropping the final 'Hei', ה, of the phrase gives us:

ואתם חשבתם עלי רע

Which translates to: *"And you calculated upon me badly."*

Changing the spacing of the letters:

Now we look at the verse in conjunction with the previous discovery of Makhshev in Genesis and change the spacing of the words to incorporate Makhshev as a word in its own right. Note that Makhshev also means calculator as well as computer.

ואת מחשב תם

This now translates to: *"And you are a naïve calculator."*

The text of Genesis at this point seems to indicate that we have performed a calculation but we have not performed it correctly. So, what have we missed?

A close examination of the Torah reveals that there are two extra letters in Numbers, the two inverted letters 'Nun.' These letters are not part of the text as such but they delineate an area of text between Numbers 10:35 and Numbers 10:36. It is interesting to note that this area of text is known as Behaalotcha which refers to the raising of the candles. However, this word may be split into two distinct words. The first letter is Beit which is also the number 2. The rest of the word, haalotcha, means 'raising you.' Now we have two extra letters in an area of text that gives the cryptic message 'Raising you by two.' Does this mean we should take into account these two extra letters?

Coming back to our earlier result of 77681, we can see that the book of Numbers contributes to the '8.' Since the two extra letters are not actually part of the text, we will treat them separately and add the 2 to the 8 as well as carrying the result. This effectively gives us 77681 + 20 or 77701 (adding 2 to 8 and 0 to 1).

Notice that we have now arrived back at a number that is a subset of the Gematria sum of Deuteronomy. The sum is 3,777,010 and we now have a new number of 77701, equal to its middle five digits. It is also interesting to note that the outer two digits 3 and 0, along with the 20 that we added (to 77681) give us 30+20 or 50. It is perhaps more than co-incidental that 50 is the Gematria value for the letter 'Nun.'

Now, repeating our earlier method of using the number as an index into the Torah, we can see that again we are in Genesis 50:20. This time we are at the beginning of the second word that can be read as 'calculator' in this verse. Looking at the two words in the text from this point, it is now a lot more positive than it was before.

<div dir="rtl">חשבה לטבה</div>

This now reads: *"Calculate for good."*

The conclusion we can draw from this is that the 2 inverted letters 'Nun' in the book of Numbers are to be treated as significant when looking at the true length of this book.

A close look at the numbers

In this section, we determine whether there are any interesting patterns that we can find in the lengths of the books of the Torah. And, more specifically, are there any relationships to Prime Numbers or any other elegant formulae that make the numbers stand out.

Closest Primes

We saw earlier the relationship between the first verse of Genesis and Perfect Numbers and we specifically noticed that the difference between the Perfect Numbers of 6 and 28 left us 22, the number of letters in the Hebrew Alphabet. Now we want to see if there is any relationship between the lengths of the books and their closest Prime Numbers.

The results are shown below:

Book	Length	Closest Prime Number(s)	Distance
Genesis	78064	78059	5
Exodus	63529	63527	2
Leviticus	44790	44789	1
Numbers	63530	63527 and 63533	3
Deuteronomy	54892	54881	11

Table 5. *Lengths of the Torah Books and Prime Numbers*

It can be seen that the sum of distances from the closest Prime is equal to 22, or the number of letters in the Hebrew Alphabet.

Elegant Formulae

If we take a close look at the lengths, do we find any elegant formulae or other striking patterns that emerge and do those patterns conform to the teaching of the Sepher Yetzirah, to Perfect Numbers or other mathematical sequences?

Genesis

Genesis contains 78,064 Hebrew letters.

From the results of the 'Computers in Genesis' experiment we were able to determine that the length of Genesis can be represented as 77700 + (7*7*7) + (7+7+7). Other than that there is not a lot more that can be determined about this number.

Exodus

Exodus contains 63,529 Hebrew characters.

Our first test of the length of Exodus is to see whether it can be derived from the 3, 7, 12 numbers of the Sepher Yetzirah. The results are interesting because the product of the squares of 3, 7 and 12 equal 63504, only 25 short of the length. But what we have to take into account here is that 3+7+12 only covers the normal letter forms and that there are 5 letters that have a different form when used as the 'final' letter in a word. So, if we add the square of 5 (25) to our previous result of 63504, we now have 63529 or exactly the length of Exodus:

$$(3*3 * 7*7 * 12*12) + 5 * 5 = 63,529.$$

Note the interesting feature of the numbers here: 3*3*7*7 is 441, whereas 12*12 is 144. These are two Mirror Numbers from only 6 that exist, 11, 12 and 13 which give 121, 144 and 169 when squared. Their Mirror Numbers 11, 21 and 31 give 121, 441 and 961 when squared.

It is important to note that the length of Exodus is the product of the squares of 3, 7 and 12 added to the sum of the digits of the length of Genesis. ie (3*3*7*7*12*12) + 7 + 8 + 0 + 6 + 4 = 63529. The relevance of this will be noted later when we look at the various formulae for the length of the book of Numbers.

Now, in keeping with the teachings of the Sepher Yetzirah, it also happens that there is another relationship with combinations of threes and sevens:

$$(7+3+7) * 3737 = 63,529$$

However, probably the most elegant way to derive the length of Exodus is by the following progression:

$$5^1 + 6^2 + 7^3 + 8^4 + 9^5 = 63,529$$

Note the elegance of the double ascending sequence. Also note that the sequence of powers 1,2,3,4,5 when taken as a number in its own right of 12345 gives us the largest possible Metadrome in base 6 which is equal to 1,865 in base 10. A Metadrome is a sequence of numbers in a strictly ascending order. Note the appearance of the Perfect Number 6 again but this time as a numeric base.

Note also the connection with: "The beginning is embedded in the end." The first digit is a five as is the last power. The main numbers are 5, 6, 7, 8 & 9 and the powers are 1, 2, 3, 4 & 5 so, as far as the numbers go, the end is the beginning and the beginning is the end.

Leviticus

Leviticus contains 44,790 Hebrew characters.

Following on from the largest possible base 6 Metadrome sequence of the powers in the formula for the length of Exodus, we discover a connection with Leviticus.

Purely and simply, the length of Leviticus at 44790 is equal to 543210 in base 6. This makes it the largest possible Katadrome in base 6. A Katadrome is a sequence of numbers in strictly descending order.

Note that a Katadrome will occur in each numeric base. As such 543210 in base 6, or 44790 in base 10, is the 6th in the sequence of largest possible Katadromes in a given base.

Base	Representation in Base	Base 10 Representation
1	0	0
2	10	2
3	210	21
4	3210	228
5	43210	2930
6	543210	44790
7	6543210	800667
8	76543210	16434824
9	876543210	381367044
10	9876543210	9876543210

Table 6. *Largest Katadromes*

As can be seen in the table above, there are only 10 possible largest Katadromes in any given base lower than 10 whose value is lower than 100,000,000. For a five-digit number, as in the case of the length of Leviticus, there is only a 1 in 89,999 chance of it being the largest Katadrome in base 6.

It is worth mentioning here that some computer checksum techniques use a method of adding a number to a summed addition of characters so that the result becomes zero. If all characters in a computer file are added together, then the result is zero. A non-zero result would indicate that the file was corrupt.

In the light of this, let us look at what happens when we add the base digits of the Exodus formula to the base 6 number which represents the length of Leviticus. Note that we will add the digits Modulo 10 which means that any carries from the addition are discarded. We will add a zero to the end of the Exodus formula which does not change its values but helps demonstrate the point.

> For Exodus: $5^1 + 6^2 + 7^3 + 8^4 + 9^5 + 0^6 = 63,529$
> For Leviticus: 543210 in base 6 = 44790 in base 10.
> 5 + 5 Modulo 10 = 0
> 6 + 4 Modulo 10 = 0
> 7 + 3 Modulo 10 = 0
> 8 + 2 Modulo 10 = 0
> 9 + 1 Modulo 10 = 0
> 0 + 0 Modulo 10 = 0

So here, in two consecutive books of the Torah, we begin to see an analogy to modern day computer checksums.

Numbers

Numbers contains 63,530 Hebrew characters in its text and it also contains the 2 inverted Hebrew letters 'Nun.' This gives it a total of 63532 characters.

Following on in the theme of base 6 numbering in Leviticus, we find that 63532 is the 28th number in the Hexagonal Prism series of $(n + 1)(3n^2 + 3n + 1)$ where n is a whole number of 0 or above.

The outstanding aspect of this number is that it now combines the two Perfect Numbers 6 and 28 from our look at Genesis. The hexagonal prism is a shape with 6 points and the length of Numbers, at 63532, is the 28th in the series.

It is worth noting here that in keeping with the Exodus formula, Numbers also shares the product of squares of 3, 7 and 12. This time, instead of adding the result to the sum of the digits of the length of the preceding book, we add the result to the sum of the digits of the following book, in this case Deuteronomy. Now we have (3*3*7*7*12*12) + 5 + 4 + 8 + 9 + 2 = 63504 + 28 = 63532. Note again that 28 is the second Perfect Number and that 63532 is 28th in the series of Hexagonal Prism numbers, as above.

In summary, the length of Numbers is related to the base 6 aspect of Leviticus and the 28 sum of the digits of the length of Deuteronomy. In doing so, it also corresponds to the lengths of both the first word and first verse of Genesis.

Deuteronomy

Deuteronomy contains 54,892 Hebrew characters.

Deuteronomy is a special case in this investigation and it is considered enough that its Gematria sum is 3,777,010. The value is sufficiently related to Genesis to show the intent in its design. A missing, added or changed letter anywhere in its text would destroy the relationship.

Having said that, there is a relationship following on from our earlier look at Prime Numbers. There is a special sequence of Prime Numbers where the formula $f(x) = 5x + 8$, remains Prime through (at least) 4 iterations. 60961, or one fifth of the length of the Torah, is the 12th Prime in this sequence:

7, 43, 883, 2269, 2917,7621,15541, 15937, 36541, 38113, 54787, 60961

The preceding Prime to 54892 is 54787 and adding in the product of the first three odd Primes gives us 54787 + (3*5*7) or 54892 which is the length of Deuteronomy.

It is also interesting that the length of Deuteronomy reduces to 28 (5+4+8+9+2), both the length of the first verse of Genesis and the 2nd Perfect Number.

The "Message in PI"

"The universe was made on purpose, the circle said. In whatever galaxy you happen to find yourself, you take the circumference of a circle, divide it by its diameter, measure closely enough, and uncover a miracle - another circle, drawn kilometres downstream of the decimal point. There would be richer messages farther in. It doesn't matter what you look like, or what you're made of, or where you come from. As long as you live in this universe, and have a modest talent for mathematics, sooner or later you'll find it. It's already here. It's inside everything. You don't have to leave your planet to find it. In the fabric of space and in the nature of matter, as in a great work of art, there is, written small, the artist's signature. Standing over humans, gods, and demons, subsuming Caretakers and Tunnel builders, there is an intelligence that antedates the universe. The circle had closed. She found what she had been searching for."
    Carl Sagan, Contact.

I suppose it is not so much a message in PI but an assumption that knowledge of PI was used to help give another method of verifying the integrity of the Torah. However, the message is still there and it does not take a lot do dig it out if you follow the instructions one step at a time.

Another Genesis Enigma

The length of Genesis is going to be somewhere in the decimal digits of PI. Actually it is in lots of places and the first million digits show about ten occurrences of 78064.

How can we determine that any occurrence is significant or that it is even possible? The answer appears to be 'yes.' Let us look at the very first occurrence of 78064 in the far decimal places of PI.

A quick search shows us that 78064 first occurs at the 222029th decimal point of PI. Other than 222029 being a Prime Number, there does not seem to be a lot that is special. So let us look around, say from the Prime directly before 220229 to the one directly after. Now we are looking at an area from the 222023rd to the 222041st decimal places of PI which reads 2237377806414495657.

Status	Position	Digit sequence
Prime	222023	22
	222025	3737
Prime	222029	78064
	222034	144
	222037	9565
Prime	222041	7

Table 7. *Book lengths in sequence*

It seems that the Sepher Yetzirah teaching has come into play here. The number 22 represents the 22 letters of the Hebrew Alphabet. Next in sequence we see 3 and 7 and, just after the length of Genesis, 78064, we see 144 or the square of 12. Now in space of just a few digits, we have a reference both to the length of Genesis and the Sepher Yetzirah. But wait! If we remember our formulas for determining the length of Exodus, it seems that all the numbers are here for that too.

Let us have a quick refresher:

$$3737 * (7+3+7) = 63529$$

$3*7*3*7 = 441$ which is a Mirror Number to 144. We know from before that $3*3*7*7*12*12$ is just 25 short of the length of Exodus, so the following is somewhat amazing.

Multiplying the 441 by 144 we get 63504 which we add to the numbers between them:

> 63504 +7+8+0+6+4 = 63529 or exactly the length of Exodus.

Now we come to an interesting sequence of numbers with interesting features 9,5,6,5,7. Ignoring the fives for the moment, we note that 9+6+7 is equal to 22, again the number of letters in the Hebrew Alphabet. If we take into account the fives, we note that this is the number of final characters in the Hebrew Alphabet.

There is, however, more than this. In Hebrew, the numbers 15 and 16 are represented by 9+6 and 9+7 which is to avoid forming part of the Holy Name. So rather than using YUD HEI, יה, for 15 and YUD VAV, יו, for 16, we have instead TET VAV, טו, and TET ZAYIN, טז.

From the above, we can now see that sometimes TET is used in instances where a number would spell out part of the Holy Name. It might also be noticed that YUD, having a value of 10, cannot be represented in a single base 10 digit. This brings us to the following observation.

The Holy Name, YHVH, is represented in Hebrew as: יהוה.
The 9,5,6,5 digit sequence of PI may be represented in Hebrew as THVH or טהוה.

Bearing in mind that the letter TET is used to replace the YUD in the 10's part of numbers 15 and 16, can it be that this is an allusion to the Holy Name, directly following the occurrence of the first digit sequence of the length of Genesis in PI?

Exodus

We saw in the previous section that the length of Exodus appears tightly bound with the length of Genesis at about the 222023rd decimal place of PI. We also notice the appearance of 'Mirror Numbers', where the number 441 (from 3*7*3*7) is the Mirror to 144 or 12*12. The length of Exodus, at 63529, appears first at the 86098th decimal place of PI. Bearing in mind the 'Mirror Numbers' from the previous section, we note that 86908, when rotated through 180 degrees, ie upside down and back to front, still reads 86098. Of course at this stage we have to have a little chuckle in the realisation that someone somewhere is quite possibly having a little joke at our expense!

It is also worth noting that the number 63529 appears three times as often as expected in the first 100,000 digits of PI. It appears at 86098, 86671 and at 90626. For the three occurrences to happen within 4528 digits is a statistical anomaly as only one occurrence per 100,000 digits would normally be expected.

Leviticus

The length of Leviticus, as mentioned earlier, is 44790 which may also be represented as the largest possible base 6 Katadrome of 543210. But by now we have picked up on a few clues from the digit cluster around the length of Genesis, especially the 'Mirror Numbers.' With this in mind, we search for the digit sequence 012345 in PI, as well as noting the occurrences of 543210.

It happens that the first occurrence of 012345 in the decimal places of PI is at 447855. We can make a simple transformation of this number if we simply take the first 5 digits and add the 6th to it. Remember 5 is the number of final characters in the Hebrew Alphabet so we use the first 5 as the final digit in 447855 and then add the second 5 to it.

44785 + 5 = 44790 which is the exact length of Leviticus. In keeping with Mirror Numbers, we now have a transformation of 44790 and the reverse of its base 6 representation:

$$44790_{10} = 543210_6$$

Now for the representation in PI:

$$44785 + 5 = 44790_{10} = 543210_6$$ which is the "Mirror Number" of 012345.

Again in PI, we have an extremely simple transformation to arrive at the length of another of the books of the Torah.

Numbers

We saw earlier that we have reason to count the extra inverted letters 'Nun' characters in the size of the book of Numbers. This gives us a length of 63532 to search for. Following on from the search for Leviticus, we are going to search for both forward and reversed occurrences of 63532.

We may have noticed by now that this search in PI requires observations about the previous search in order to understand the results of the next one. With the occurrence of 63532 in PI, what catches our eye is the 6th occurrence of the reversed number, which is at the 447350th decimal point of PI. Remember that the length of Leviticus, 44790, is a base 6 Katadrome and that the length of Numbers is a Hexagonal Prism number. This points to using the number 6. With Leviticus, we searched for the Mirror of 543210 due to the appearance in the Exodus calculation of 441 and 144.

We note that the occurrence of the reversed 63532 happens at a location in PI which is exactly 505 away from the 012345 occurrence for Leviticus. 447855 – 447350 = 505. 505 is of course a Palindromic Number which follows on from the theme of Mirrored Numbers which means 505 reads the same forwards or backwards.

We know that till now we have used a mixture of base 10 and base 6 numbers and that the 441, 144 Mirror Numbers have been useful before. Close inspection of a section of the Genesis occurrence shows we have the 64 of the Genesis length running into the 144. However, 64 in base 10 is equal to 144 in base 6 (36 + 24 + 4). We can further note from this that $441_{10} + 144_6$ is the same as 441 + 64 or 505.

By using all our previous findings of Mirrored Numbers and usage of both base 6 and base 10 numbers, we find that when subtracted from the location of the Leviticus occurrence in PI, it gives us the location of the occurrence of the Numbers length in PI:

$$447855 - (441_{10} + 144_6) = 447350.$$

Stepping backwards from the 447350th digit of PI we find 63532, or the length of Numbers.

Deuteronomy

The length of Deuteronomy appears first in PI at the 54468th decimal place but it also appears stepping backwards from the 79298th decimal place.

There probably is little that can be derived from the first occurrence at 54468 other than to notice that 54468 is just 424 different from the length of Deuteronomy of 54892. But, as with the 505 number in the Numbers section above, 424 is also Palindromic.

The appearance at 79298 is more interesting because of its difference from the length of Genesis of 78064. Remember the appearance of 012345 for Leviticus. Remember also the Genesis index of 77701 being a subset of the Deuteronomy Gematria sum of 3,777,010. We now find a parallel situation:

$$79298 - 78064 = 1234$$

Not only is this a simple incrementing sequence but it is also a subset of the reversed Leviticus occurrence of 012345. Leviticus as 543210_6 is the largest Katadrome in base 6. Looking at 1234 as a base 5 digit sequence, we note that it becomes the largest Metadrome in base 5.

441 and 144: Why so special?

Earlier in this document, we looked at the teaching of the Sepher Yetzirah, in particular the separation of the 22 letters of the Hebrew Alphabet into 3 Mothers, 7 Doubles and 12 Elementals.

We have also made much use of the numbers 441 and 144. 441 is the product of the squares of 3 and 7 and 144 is the square of 12. Initially we derived the 441 from the numbers directly preceding the first length of Genesis in PI, or 3737. 3*7*3*7 is, of course, equal to 441. The number 144 occurs as a digit sequence directly following the first length of Genesis in PI. It is almost as though this occurrence of the length of Genesis has an arrow each side pointing to it to draw attention to it.

What we notice is that 441 is the Mirror Number of 144 and that the two numbers are equal to the squares of 21 and 12 respectively. This leads us to wonder, therefore, if there is anything special about these numbers. As it happens, there are only three pairs of numbers where this phenomenon occurs and they are 121 and 121, 144 and 441, and 169 and 961. We note that these numbers are the squares of 11, 12 and 21 and 13 and 31. If we ignore Palindromic Numbers, that leaves us with just the two true Mirror Numbers that can be derived by squaring other Mirrored Numbers.

We note therefore that 441 and 144 are in the middle of the range of Mirror Numbers.

Looking at 441 in bases other than 10 is also interesting. 441 in base 5 is equal to 121 in base 10 and we note that the square root of 121 is 11, our first generator for a Mirrored square of 121. 441 in base 6 is equal to 169 in base 10, or one of the third pair of Mirror Numbers which is the square of 13.

We noticed earlier that 11 and its square of 121 are Palindromic which may not be a true candidate for a Mirrored Number pair as such, since 121 Mirrored is still 121.

We notice, therefore, that the base 6 representation of 441, at 169 (4*36 + 4*6 + 1 = 169) is the square of the only other number to generate a true Mirror Number other than 12. This in itself shows us that this 441, 144 pair is significant in base 6 as well as base 10.

The significance of base 6 shows up in our earlier investigations with the length of Leviticus being the largest possible base 6 Katadrome and the length of Numbers being 28th in a series of Hexagonal Prism numbers.

So we can see that the numbers 441 and 144 do have some special properties not immediately apparent at a passing glance.

Conclusions

Whom shall one teach knowledge? And whom shall one make to understand the message? Them that are weaned from the milk, them that are drawn from the breasts? For it is precept by precept, precept by precept, line by line, line by line; here a little, there a little. For with stammering lips and with a strange tongue shall it be spoken to this people; Isaiah 28 v10-12

We set out in this document to search for mathematical patterns in the Torah. And, as it happens, we found interesting relationships with the lengths of the books that comprise the Torah. Those relationships adhered well to the teaching of the Sepher Yetzirah and also introduced us to Prime and Perfect Numbers.

It is interesting that the first word of Genesis is 6 letters long. Not only is 6 the first Perfect Number but it is also the numeric base that we find we have to work in to be able to interpret some of the patterns.

Of course our 441, 144 pairing also alerts us to numbers that 'Mirror' each other. This was also useful is locating some of the number sequences in PI.

Basically, we had to go step by step and study each precept as it became apparent before moving on to the next.

Did we discover a message in PI? That is a matter for debate. But we certainly found patterns in PI that corresponded to the design of the Torah.

So, have we just followed a whole string of co-incidences or does the Torah exhibit strong evidence that it was intelligently designed such that its integrity of data could be verified some 3,500 years after it was first dictated to Moses?

Of course, what we have to ask ourselves is who could have known PI to 500,000 digits all that time ago?

Appendix A

The Text of the Sepher Yetzirah

Short version translated in the imperative

Chapter 1

1. With 32 wonderous paths of Wisdom engrave Yah, the Lord of Hosts, [God of Israel, the Living God, King of the Universe, Almighty God, merciful and gracious, High and Exalted, dwelling in eternity, whose name is Holy, and create His universe] with three books, with text (Sepher), with number (Sephar), and with communication (Sippur).
2. Ten Sefirot of Nothingness plus twenty two [foundations] letters: Three Mothers, Seven Doubles, and Twelve Elementals.
3. Ten Sefirot of Nothingness: The number of the ten fingers, five opposite five, with a single covenent precisely in the middle, like the circumcision of the tongue and the circumcision of the membrum.
4. Ten Sefirot of Nothingness: Ten and not nine; ten and not eleven. Understand with Wisdom, and be wise with Understanding. Examine with them and probe them, make a thing stand on its essence, and make the Creator sit on his base.
5. Ten Sefirot of Nothingness: Their measure is ten which have no end. A depth of beginning, a depth of end; a depth of good, a depth of evil; a depth of above, a depth below; a depth east, a depth west; a depth north, a depth south. The singular Master, God faithful King, dominates them all from His holy dwelling until eternity of eternities.
6. Ten Sefirot of Nothingness: Their vision is like the "appearance of lightening", their limit has no end. His Word in them is "running and returning". They rush to his saying like a whirlwind, and before His throne they prostrate themselves.
7. Ten Sefirot of Nothingness: Their end is embedded in their beginning, and their beginning in their end, like a flame in a burning coal. For the Master is singular, He has no second. And before One, what do you count?
8. Ten Sefirot of Nothingness: Bridle your mouth from speaking and your heart from thinking. And if your heart runs, return to the place, as it is written, "The Chayot running and returning" (Ezekizl 1:14). Regarding this covenant was made.
9. Ten Sefirot of Nothingness: One is the Breath of the Living God, blessed and benedicted be the Name of the Life of worlds. Voice, Breath and Speech. This is the Holy Breath (Ruach HaKodesh).
10. Two: Breath from Breath. With it engrave and carve twenty-two foundation letters - three Mothers, seven Doubles, and twelve Elementals - and one Breath is from them.

11. Three: Water and Breath. With it engrave and carve chaos and void, mire and clay. Engrave them like a garden plot, carve them like a wall, cover them like a ceiling. Four: Fire from water. With it engrave and carve the Throne of Glory, Seraphim, Ophanim, holy Chayot, and Ministering Angels. From the three establish His dwelling, as it is written, "He makes His angels of breaths, His ministers from flaming fire" (Psalms 104:4).
12. Five: With three of the simple letters seal "above". Choose three and place them in His great Name: YHV. With them seal the six extremities. Face upward and seal it with YHV.
13. Six: Seal "below". Face downward and seal it with YHV.
14. Seven: Seal "east. Face straight ahead and seal it with HYV.
15. Eight: Seal "west". Face backward and seal it with HVY
16. Nine: Seal "south". Face to the right and seal it withn VYH.
17. Ten: Seal "north". Face to the left and seal it with VHY.
18. These are the Ten Sefirot of Nothingness. One is the Breath of the Living God. Breath [from Breath], Fire [from water, and the extremities], up, down, east, west, north and south.

Chapter 2

1. Twenty-two foundation letters: three Mothers, seven Doubles, and twelve Elementals. The three Mothers, AMSh, their foundation is the pan of merit, the pan of liability, and the tongue of decree deciding between them.
2. Twenty-two letters: Engrave them, carve them, weigh them, permute them, and transform them, and with them depict the soul of all that was formed and all that will be formed in the future.
3. Twenty-two foundation letters: They are engraved with voice, carved with breath, and placed in the mouth in five places: AChHO, BVMP, GYKO, DTLNTh, ZSShRTz.
4. Twenty-two foundation letters: They are set in a circle as 231 Gates. And this is the sign: There is no good higher than delight (ONG), and there is no evil lower than plague (NGO).
5. How? Weigh them and transpose them, Aleph with each one, and each one with Aleph; Bet with each one, and each one with Bet. They repeat in a cycle. Therefore, everything formed and everything spoken emanates in one name.
6. From substance out of chaos and make nonexistence into existence. Carve great pillars out of air that cannot be grasped. This is the sign: One foresees, transposes, and makes all creation and all words with one Name. And a sign of this: Twenty-two objects in a single body.

Chapter 3

1. Three Mothers, AMSh: Their foundation is the pan of liability, the pan of merit, and the tongue of decree deciding between them.
2. Three Mothers, AMSh: A great, mystical, concealed secret, sealed with six rings. And from it emanate fire and water, separating themselves as male and female. Three Mothers, AMSh, are their foundation, and from them are born the Fathers, from which everything was created.

3. Three Mothers, AMSh, in the Universe are air, water, and fire. Heaven was created from fire, earth was created from water, and the air decides between the fire and the water.

4. Three Mothers AMSh, in the year are fire, water, and breath. The hot is created from fire, the cold is created from water, and the temperate from breath decides between them.

5. Three Mothers, AMSh, in the Soul are fire, water, and breath. The head is created from fire, the belly is created from water, and the chest, created from breath, decides between them.

6. Three Mothers, AMSh: Engrave them, carve them, permute them, and with them seal three Mothers in the Universe, three Mothers in the Year, and three Mothers in the Soul, male and female.

7. Make aleph king over breath, bind a crown to it, and combine one with another. And with them seal air in the Universe, the temperate in the year, and the chest in the Soul, the male with AMSh, and the female with AShM.

8. Make Mem king over water, bind a crown to it, and combine one with another. And with them seal earth in the Universe, the cold in the Year, and the belly in the Soul, the male with MASh, andthe female with ShMA.

Chapter 4

1. Seven Doubles, BGD KPRT: Their foundation is life, peace, wisdom, wealth, grace, seed, dominance. Each has two sounds: B-Bh, G-Gh, D-Dh, K-Kh, P-Ph, R-Rh, T-Th. A structure of soft and hard, a structure of strong and weak, double because they are transposes. The transpose of life is death, the transpose of peace is evil, the transpose of wisdom is folly, the transpose of wealth is poverty, the transpose of grace is ugliness, the transpose of seed is desolation, the transpose of dominance is subjugation.

2. Seven Doubles, BGD KPRT: Seven and not six, seven and not eight. Examine with them and probe from them, make each thing stand on its own essence, and make the Creator sit on His base.

3. Seven Doubles, BGD KPRT, parallel the seven extremities. These are the six extremities: up, down, east, west, north, south. And the Holy Palace precisely in the middle upholds them all.

4. Seven Doubles, BGD KPRT: Engrave them, carve them, combine them, as planets in the Universe, days in the Year, and gates in the Soul. From them engrave seven firmaments, seven earths, seven weeks. Seven is therefore beloved under all heavens.

5. How? Make Bet king over life, bind a crown to it, and with it depict Saturn in the universe, Sunday in the Year, and the right eye in the Soul. Make Gimel king, bind a crown to it, and with it depict Jupiter in the Universe, Monday in the Year, and the left eye in the Soul.

6. Make Dalet king, bind a crown to it, and with it depict Mars in the Universe, Tuesday in the Year, and the right ear in the Soul.

7. Make Kaf king, bind a crown to it, and with it depict the Sun in the Universe, Wednesday in the Year, and the left ear in the Soul.

8. Make Peh king, bind a crown to it, and with it depict Venus in the Universe, Thursday in the Year, and the right nostril in the Soul.

9. Make Resh king, bind a crown to it, and with it depict Mercury in the Universe, Friday in the Year, and the left nostril in the Soul.
10. Make Tav king, bind a crown to it, and with it depict the Moon in the Universe, the Sabbath in the Year, and the mouth in the Soul.
11. The Seven Doubles, how does one permute them? Two stones build two houses, three build six houses, four build 24 houses, five build 120 houses, six build 720 houses, and seven build 5040 houses. From thereon go out and calculate that which the mouth cannot speak and the ear cannot hear. These are the seven planets in the Universe: The Sun, Venus, Mercury, the Moon, Saturn, Jupiter, Mars. These are the seven days in the Year: The seven days of creation. And the seven gates in the Soul are the two eyes, the two ears, the two nostrils, and the mouth. And with them were engraves the seven firmaments, the seven earths, the seven hours. Seven is therefore beloved for every desire under heaven.

Chapter 5

1. Twelve Elementals: HV ZCh TY LN SO TzQ. Their foundation is sight, hearing, smell, speech, taste, coition, action, motion, anger, laughter, thought, and sleep. Their measure is the twelve diagonal boundaries: the north-east boundary, the south-east boundary, the upper-east boundary, the lower-east boundary, the upper-north boundary, the lower-north boundary, the south-west boundary, the north-west boundary, the upper-west boundary, the lower-west boundary, the upper-south boundary, the lower-south boundary. They continually spread for ever and ever. They are the Arms of the Universe.
2. Twelve Elementals: HV ZCh TY LN SO TzQ. Engrave them, carve them weigh them, permute them, transpose them, and with them depict the twelve constellations in the Universe: Aries, Taurus, Gemini. Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius, and Pisces; the twelve months in the Year: Nissan, Iyar, Sivan, Tamuz, Av, Elul, Tishrei, Mar-cheshvan, Kislev, Tevet, Shevat, Adar; and the twelve directors of the Soul: two hands, two feet, two kidneys, the spleen, the liver, the gall bladder, the hemsess, the kiva, and the korkeban.
3. How does one permute them? Make Heh king, bind a crown in it, and with it depict Aries in the Universe, Nissan in the Year, and the right hand in the Soul.
Make Vav king, bind a crown to it, and with it depict Taurus, Iyar in the Year, and the left hand in the Soul.
Make Zayin king, bind a crown to it, and with it depict Taurus in the Universe, Sivan in the Year, and the right foot in the Soul.
Make Chet king, bind a crown to it, and with it depict Cancer in the Universe, Tamuz in the Year, and the left foot in the Soul.
Make Tet king, bind a crown to it, and with it depict Leo in the Universe, Av in the Year, and the right kidney in the Soul.
Make Yud king, bind a crown to it, and with it depict Virgo in the Universe, Elul in the Year, and the left kidney in the Soul.

Make Lamed king, bind a crown to it, and with it depict Libra in the Universe, Tishrei in the Year, and the liver in the Soul.

Make Nun king, bind a crown to it, and with it depict Scorpio in the Universe, Marcheshvan in the Year, and the spleen in the Soul.

Make Samekh king, bind a crown to it, and with it depict Sagittarius in the Universe, Kislev in the Year, and the gall bladder in the Soul.

Make Eyin king, bind a crown to it, and with it depict Capricorn in the Universe, Tevet in the Year, and the hemsess in the Soul.

Make Tzadi king, bind a crown to it, and with it depict Aquarius in the Universe, Shevat in the Year, and the kivah in the Soul.

Make Kuf king, bind a crown to it, and with it depict Pisces in the Universe, Adar in the Year, and the korkeban in the Soul.

4. Three Mothers which are three Fathers, from which emanate fire, breath and water. Three Mothers, seven Doubles, and twelve Elementals.

5. These are the twenty-two letters which are founded by the Blessed Holy One [Yah, YHVH of Hosts, God of Israel, the Living God, high and exalted] dwelling in eternity, whose name is Holy, exalted and Holy is He.

Chapter 6

1. Three are the fathers and their offspring, seven are the planets and their hosts, and twelve are the diagonal boundaries. And the proof of this, true witnesses, are the Universe, the Year, and the Soul. He decreed Twelve, (Ten), Seven and Three and He appointed them in the Teli, the Cycle, and the Heart. The three are fire, water, and breath: fire above, water below, and breath, the decree that decides between them. A sign of this is that fire upholds water.

   Mem hums, Shin hisses, and Alef is the decree that decides between them.

2. The Teli in the Universe is like a king on his throne, the cycle in the Year is like a king in the province, the Heart in the Soul is like a king in battle.

   "Also every desire, one opposite the other was made by God" (ecclesiastes 7:14). Good opposite evil, good from good, evil from evil. Good makes evil recognisable, and evil makes good recognisable. Good is kept for the good, and evil is kept for the wicked.

3. Three: Each one stands alone. Seven are divided, three opposite three, with a decree deciding between them. Twelve stand in war: three who love, three who hate, three who give life, and three who kill. The three that love are the heart, the ears and the mouth; the three that hate are the liver, the gall bladder, and the tongue. And God, the faithful King dominates them all. One over three, three over seven, and seven over twelve, and all of them are bound, one to another.

4. And when Abraham our father gazed, he looked, saw, delved, understood, engraved, carved, permuted and depicted, and he was successful. And the Master of all, Blessed be He, revealed Himself to him, and took him in His bosom, [kissed him on the head, and called him, "my Beloved"]. He made a covenant with him between the ten toes of his feet - this is

the covenant of circumcision - and between the ten fingers of his hand - this is the covenant of the tongue. He bound the twenty-two letters to his tongue and revealed their foundation. He drew them in water, burned them in fire, agitated them with breath. He ignited them with seven planets, and directed them with twelve constellation.
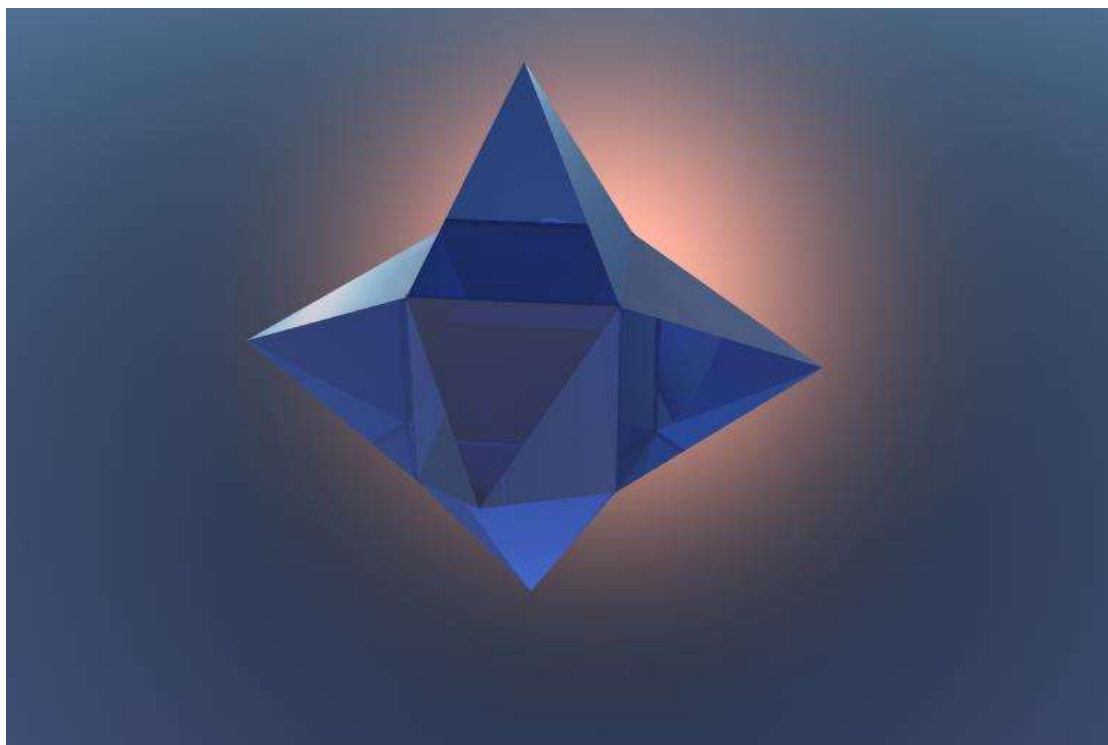

Figure 2. *Hexagonal prism*

Bonus Section by Moshe Aharon Shak
NUMBER OF LETTERS IN THE TORAH

The number of letters in the Torah (שדתתה - 304,805) at its lowest skip is 3 is found in a remarkable place forming a mini compact matrix. The תה of שדתתה coincides תורה with of תורה. In addition, the surface text of term שדתתה covers the phrase: "Receive thy words: Torah". In reality, Thy words refer to the 304,805 letters of the Torah. See Table 1 below.

Kevin Acres raised the question as to the number of CHARACTERS in the Torah, or specifically, do the two **inverted nuns** form part of the total number of characters making the Torah (שדתתז) 304,807 characters long. In a similar exercise to find out the "best" matrix for the two additional letters did NOT produce a very good find. On the other hand, the eighth shortest skip term was found in close proximity to שדתתה - 304,805. See the overall matrix and Table 2 below. The larger matrix has some very interesting features:

1- שדתתזנאמנ -   The term שדתתז (304,807) is followed in the matrix by the term נאמנ. There are several significances here. The term נאמנ means trustworthy, reliable, true. This implies that we can believe in the longer term of שדתתז (304,807). But can we believe in both figures? The shorter term is more significant. The way I see it, the matrix explains the dilemma.

2- נאמנ -   The term נאמנ includes the two nuns that make the Torah two letters longer (the two inverted nuns in Numbers 10:35). The two nuns are at the beginning and end in both cases. In Numbers they are at the beginning and end of the two verses. Here they are at the beginning and end of the term נאמנ.

3- נאמנ -   But what do the two nuns enclose? It is the term אמ   "**IF**" or "ON THE CONDITION". So, here lies the explanation of the two reliable numbers. The number of characters in the Torah is 304,805, but **IF** we are to consider the two inverted nuns we can reliably say: 304,807. And we can all say: אמנ (Amen – the acronym for G-d King נאמנ).

4- תורה -   Deuteronomy 33:4 **-** Moses commanded us a law, an inheritance of the congregation of Jacob. The term Torah – a law – תורה, begins the verse that is very dominant in the two terms relating to the actual number of characters in the Torah. The reason for the exercise to look for the number of letters in the Torah, was to verify if during the generations – over thousands of years – we lost any letters. Did we add letters? Here the verse is telling us that this Torah, in the question of how many letters it contains, is the SAME Torah that we INHERITED from "the congregation of Jacob". It was preserved.

TABLE 1: OVERALL MATRIX WITH MINI MATRIX TABLE

Term	Translation	Skip	R Factor	(in Matrix)	Start	End
שא מדברתיכ	receive Thy words	1	0.000	4.370	Deuteronomy Ch 33 V 3 Letter 33	Deuteronomy Ch 33 V 3 Letter 41
תורה	Torah	1	-1.531	2.839	Deuteronomy Ch 33 V 4 Letter 1	Deuteronomy Ch 33 V 4 Letter 4
שדתתה	304805	3	0.162	4.532	Deuteronomy Ch 33 V 3 Letter 33	Deuteronomy Ch 33 V 4 Letter 4

The ELS reference is 55 characters between rows.
The matrix starts at Deuteronomy **33 V3 Letter 33** and ends at Deuteronomy **33 V4 Letter 4**.
The matrix spans 13 characters of the surface text.
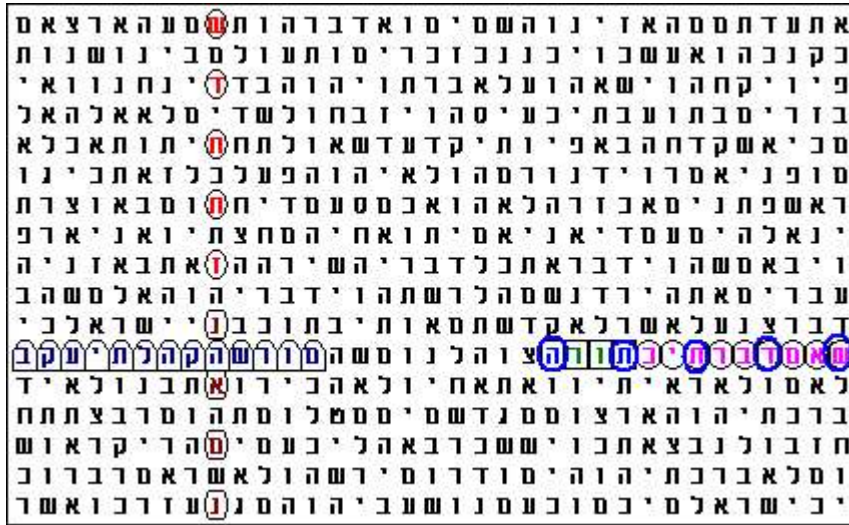The matrix has 1 rows, is 13 columns wide and contains a total of **13 characters**.

TABLE 2: OVERALL MATRIX WITH OVERALL MATRIX TABLE

Term	Translation	Skip	R Factor (in Matrix)	Start	End
שדתתז	**304807**	450	-0.907 1.802	Deuteronomy 32 V1 Letter 20	Deuteronomy 32 V44 Letter 27
תורה	Torah	1	-1.531 1.178	Deuteronomy 33 V4 Letter 1	Deuteronomy 33 V4 Letter 4
שדתתה	304805	3	0.162 2.871	Deuteronomy 33 V3 Letter 33	Deuteronomy 33 V4 Letter 4
שא מדברתיכ	receive Thy words	1	0.000 2.709	Deuteronomy 33 V3 Letter 33	Deuteronomy 33 V3 Letter 41
נאמנ	trustworthy, reliable, true	450	-3.633 -0.924	Deuteronomy 32 V51 Letter 63	Deuteronomy 33 V29 Letter 30
שדתתז נאמנ	**the two terms follow one another – making one term.**				
מורשה קהלת יעקב	Moses commanded us a law, an inheritance of the congregation of Jacob.				
		1	0.000 2.709	Deuteronomy 33 V4 Letter 14	Deuteronomy 33 V4 Letter 26

The ELS reference is 225 characters between rows.
The matrix starts at Deuteronomy 31 V30 Letter 37 and ends at Deuteronomy 33 V29 Letter 38.
The matrix spans 3635 characters of the surface text.
The matrix has 17 rows, is 35 columns wide and contains a total of 595 characters.

Contact **Moshe Shak** (about the matrix above) at: mshak@videotron.ca

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Kevin Acres is the creator and main programmer for the CodeFinder: Millennium Edition Bible codes software program, the #1 ranked codes program in the world. His interest in writing this paper is to try and prove the accuracy of the Torah as a whole down to the exact number of letters, and to prove the number of letters in each of the 5 books is true. Moshe Aharon Shak is a long-time codes researcher, who is one of a small number of researchers on the cutting edge, pushing out the frontiers of Bible codes findings.