

The Hebrew Corner

If you were a student (victim) of algebra in high school, you may have some memory of a number called PI, represented by the Greek letter π , which appeared in some formulas involving the circle. One of these was Area of circle = $\pi * R^2$ (but teacher, pie are round and cornbread are square!) where R is the distance from the center point to the circle itself. But PI appears in more equations than the familiar ones involving the circle, equations that describe the natural world. Let's focus in on one:

There was a discovery in the early 20th century that the smallest particles that make up the material world, such as the electron, could be described best as small, compact waves, such as the radio waves that you receive when you listen to your radio, but of very short distance. An equation was discovered that generates a mathematical description of these waves, which is known as the wave equation. These descriptions or blueprints are referred to as the wavefunction. Each different type of particle has a different wavefunction, and groups of particles have their own wavefunction. So the very minute details of the fine structure of the universe including the structure of our own bodies is determined by these wavefunctions. How does this relate to PI? Well, in the equation that generates these wavefunctions, the number PI is present as a constant. So it can be said that the number PI is incorporated into the very design plan of God's creation.

But now you're probably wondering, what's this got to do with Hebrew?

In the Hebrew language, sometime after the text of the various books of the Tanach was established, numbers started being associated with the letters of the Hebrew alphabet. The first evidence of these was on Judean coins of the 2nd century BC, and were in common use by the 2nd century AD. The Masoretes, who carefully copied the text of the Tanach on scrolls, at the end of each book of the Tanach would give a count of the number of verses in the book, and sometimes other counts such as word counts. These counts were often given in terms of Hebrew letters representing the number of verses or words. Here are few examples of the numbers: the letter bet (ב) is 2, heh (ה) is 5, and tav (ת) is 400. Now over the years there has been theological debate about the scriptural significance of these letter numbers, known as gematria. People will add or multiply numbers of the letters of certain words or phrases in the Bible to get numbers that they consider to be spiritually significant (666 is common). These should generally be viewed with caution, and can lead away from biblical truths in many cases, rather than toward them. However, what follows cannot be dismissed so easily:

The individual letters of the Hebrew language each have their own associated number value, but the Hebrew words can be given a value as well, by adding up the values of the letters of the word. For example, the value of shalom (שָׁלוֹם, shah-LOHM)

is obtained by adding from right-to-left, 300 for the shin, 30 for the lamed, 6 for the vav, and 40 for the mem, for a total value of 376. Now here is the main point of this discussion: Dr. Peter Bluer and Vernon Jenkins (around 2001) tried applying a simple formula to verses in the Bible. This formula, which will be referred to here as the verse product, VP, is as follows:

$$VP = \frac{(\text{Number of letters}) \times (\text{Product of letters})}{(\text{Number of words}) \times (\text{Product of words})}$$

That is, you count the number of letters in the verse, then multiply that by the result you get by multiplying the value of each letter in the verse. Then you divide by the number of words in the verse multiplied times the result you get by multiplying the value of each word in the verse. This is simple enough to be done on a calculator. Then you express the result as a number between 1 and 10 (the extra zeroes at the end are not significant for this purpose).

Bluer and Jenkins discovered (this information is available on the Web), that if you apply this formula to the Hebrew of Genesis 1:1, that you get a number that is remarkably close to PI, in fact the first 5 digits are exactly the same as the first five digits of PI, 3.1415. You who are students of the Old Testament (Tanach) should be familiar with this verse:

“In the beginning, God created the heavens and the earth.”

So we have a simple formula applied to the signature verse associated with God’s creation of the universe, associated with a number that is tightly embedded in the very design plan of the universe.

But you might be thinking, could there be a number of other verses in the Tanach that give a better approximation to PI, and so that Genesis 1:1 does not stand out in this regard. This was put to the test:

There are 23,213 verses in the Tanach, so trying to determine all the verse products by hand calculator would take considerable time. A text version of the Tanach was found on the Web (provided by Shamash, the Jewish Network) that was transliterated into English characters (for example, the Hebrew letter mem would be represented by an m). A short computer program was developed to read in the Tanach text from files and calculate the verse product for each verse. The results were as follows:

Of all 23,213 verses in the Tanach, the verse whose verse product gave the best approximation to PI was Genesis 1:1! A list of all the VP’s for every verse would be too long a summary to list here, but shown below are the top five, and the VP that was furthest away from PI, along with the first six digits of PI itself:

	PI	3.14159...
1.	Genesis 1:1	3.14155
2.	2 Kings 6:28	3.14154
3.	Leviticus 17:13	3.14176
4.	Exodus 21:1	3.14194
5.	Jeremiah 13:9	3.14248
.....		
23213.	1 Kings 15:26	9.99601

The fact that there is one verse with a VP almost as close as Genesis 1:1 to PI should make us thankful the scribes were so careful in preserving the text of the Tanach. For it is very clear that if one additional letter were added or taken away from Genesis 1:1, then the verse product for 2 Kings 6:28 would be associated with the number PI. Read 2 Kings 6:28 in scripture and you will see why this would not be such a good thing.

The Hebrew word qadosh (קדוש, kah-DOHSH) means holy, sacred. Now it is known that PI is transcendental (can't be determined as a solution to any of those equations involving powers of x you were asked to solve in algebra class), and that it can only be expressed approximately and not exactly to the last digit. Based on the information given above, the reader is left with the following question to consider:

Is PI qadosh ?

May you be blessed and experience the love of God every day.
He is qadosh, qadosh, qadosh!