In the name of God, Most Gracious, Most Merciful

B E Y O N D
P R O B A B I L I T Y

GOD'S MESSAGE IN MATHEMATICS

Series 2:

The Opening Chapter of the Quran
Sura 1: The Key (Al-Fãtehah)

by Faiz Currim, Ph.D. & Lisa Spray

Contents

Acknowledgements

All thanks and praise be to God, the Almighty Author of the Quran.

Part 1: The Quran's Miracle

Introduction

Mathematics is the language in which God wrote the universe.
Galileo (1564-1642 AD)

This book focuses on the mathematical facts about "The Key", Sura (chapter) 1 of the Quran. It follows the book "Beyond Probability, Series 1" (which contains remarkable mathematical facts about the first verse of the Quran, "*In the name of God, Most Gracious, Most Merciful*"). The facts presented in each of these two books represent a small component of the Quran's intricate digital signature, a tamper-proof "seal" based on the number 19.

Your first question may be, "Why should I care?" Or, "Why is this important?" Great questions. If these mathematical facts are correct, they tell you that for the first time in history, we have a scripture with built-in proof of divine authorship. This was pointed out by Rashad Khalifa, Ph.D., who discovered the Quran's mathematical system. His research led him to conclude:

> *The Quran is characterized by a unique phenomenon never found in any human authored book. Every element of the Quran is mathematically composed—the suras, the verses, the words, the number of certain letters, the number of words from the same root, the number and variety of divine names, the unique spelling of certain words, the absence or deliberate alteration of certain letters within certain words, and many other elements of the Quran besides its content. There are two major facets of the Quran's mathematical system: (1) The mathematical literary composition, and (2) The mathematical structure involving the numbers of suras and verses. Because of this comprehensive mathematical coding, the slightest distortion of the Quran's text or physical arrangement is immediately exposed.*
> [from Appendix 1 of *Quran The Final Testament*, by Rashad Khalifa]

Statistically speaking, this phenomenon cannot exist by chance. It points to a deliberate design involving not only the structure of the scripture, but also a control of the language for the verses to make literary sense and contain religious wisdom. If humans were to try and write a book with a mathematical encoding similar to that of the Quran, they would find it to be *far beyond* today's enormous computing capabilities. Recall that the Quran was revealed in the seventh century. There was no electricity back then, and certainly no computers.

Mathematics is the most exacting of sciences. And the Quran's proof of divine authorship is suitable for today's computer age. Yet, its simplicity means you don't have to have a degree in mathematics to appreciate it, just an open mind.

"How can I verify this claim of divine authorship?" Again, a valid question. Claims are easy to make. But they require evidence to believe. You want proof that what you're reading is not another exaggeration. The beauty of the Quran's mathematical code is that it's verifiable. You can get on a computer and check out most of the facts without leaving the comfort of your home or learning Arabic. This book, God willing, presents those facts. You don't have to take our word for it. You can examine them yourself and verify that they are accurate. If you're worried that we've manipulated the data, you can rest assured that it's not possible and any such attempt would be exposed immediately. Sura 1, The Key (or in Arabic, Al-Fãtehah) is the most well-

known chapter of the Quran, recited daily by millions in their Contact Prayers (*Salat*). You can go to any bookstore or the Internet and get a copy to examine.

Ok, so what if there's proof that Quran is from God? Why invest the time to verify? Because, the Quran has answers to questions like: Why am I here? How do I find happiness? Where do I go when I die? Why aren't the religions of the world peacefully united? (They should be!) You'll also find clear confirmation for what you knew all along—that those who kill and oppress others in the name of God, are not following Quran, nor any book of God.

Let's say that you're willing to read on for now. What is this proof? How do you find it?

As Dr. Khalifa's previous quote indicates, the Quran, God's message to the world, comes with a built-in proof of divine authorship. The proof is based on the number 19 (see below for verses 74:30-31 of the Quran which pointed out the role of this number centuries ago; a role that we now appreciate in the age of computers and mathematical sophistication).

The findings you will read here are presented with the easiest and most straightforward ones first. We hope you will enjoy exploring these findings.

Why 19?

A universal coding based on the number 19 threads throughout creation. We now have evidence that all of God's scriptures (Khalifa, 1989a), including the Quran, were mathematically coded with the number "19". Specifically for the Quran, we see 19 referenced in 74:30-31 as the number that will show people that the Quran could not be authored by other than God.

The Quran's Common Denominator
74:30 Over it is nineteen.
74:31 We appointed angels to be guardians of Hell,
and we assigned their number *(19)*
(1) to disturb the disbelievers,
(2) to convince the Christians and Jews *(that this is a divine scripture)*,
(3) to strengthen the faith of the faithful,
(4) to remove all traces of doubt from the hearts of Christians, Jews, as well as the believers, and
(5) to expose those who harbor doubt in their hearts, and the disbelievers; they will say, "What did GOD mean by this allegory?" GOD thus sends astray whomever He wills, and guides whomever He wills. None knows the soldiers of your Lord except He. This is a reminder for the people.

As the next paragraph explains, 19 has a special numerical correlation with the word "ONE" in the scriptural languages—Aramaic, Hebrew, and Arabic—and to the Oneness of God.

When the Quran was revealed, 14 centuries ago, the numbers known today did not exist. A universal system was used where the letters of the Arabic, Hebrew, Aramaic, and Greek alphabets served as numerals. The number assigned to each letter is its "Gematrical Value." The numerical values of the Arabic alphabet are shown in Table 1.

To get the gematrical value of a word you sum the values for all its letters. In Arabic, the word for "ONE" is "WAHD" (واحد) (pronounced WAAHED); see Table 2 for its gematrical value.

Table 1: Gematrical values of the Arabic alphabet (approximate English equivalents are in parentheses)

								1 ا (A)
10 ى (Y)	9 ط (Ṭ)	8 ح (Ḥ)	7 ز (Z)	6 و (W)	5 ه (H)	4 د (D)	3 ج (J)	2 ب (B)
100 ق (Q)	90 ص (S)	80 ف (F)	70 ع (a)	60 س (S)	50 ن (N)	40 م (M)	30 ل (L)	20 ك (K)
1000 غ (G)	900 ظ (Ẓ)	800 ض (Ḍ)	700 ذ (d)	600 خ (k)	500 ث (t)	400 ت (T)	300 ش (s)	200 ر (R)

Table 2: Why "19!"

Arabic	English equivalent	Value
و	W	6
ا	A	1
ح	Ḥ	8
د	D	4
Total		**19**

The number 19, therefore, proclaims the First Commandment in all the scriptures: that there is only ONE God.

> **The Lord our God is ONE!**
> **Therefore, you shall worship**
> **the Lord your God**
> **with all your heart,**
> **with all your soul,**
> **with all your mind,**
> **and with all your strength.**
>
> [Deuteronomy 6:4-5]
> [Mark 12:29]
> [Quran 2:163, 17:22-23]

Part 2: The Key (Al-Fãtehah)

Overview

The Key, Al-Fãtehah, is the first sura of the Quran and the fifth to be revealed to Muhammad (in chronological sequence). It is made up of 7 verses. If you've seen Muslims (in English, "Submitters") pray their daily Contact Prayers, then you may have heard this chapter being recited without realizing it.

Table 3, adapted from: "The Contact Prayer (Salat)" by Khalifa, 1989, lists the English translation of the chapter along with the transliteration of the Arabic using English letters. Note: while there are different ways to transliterate the Arabic, the proofs we present are not based on the transliteration. When counting letters or calculating the gematrical values of verses, the original Arabic is the only source that can always be safely used. See Table 8, for a demonstration of the gematrical values of Al-Fãtehah as calculated from the Arabic.

Table 3: The Key (Al-Fãtehah)

Verse	Translation and Transliteration
1	In the name of GOD, Most Gracious, Most Merciful. *BISMIL LAAHIR RAHMAANIR RAHEEM*
2	Praise be to GOD, Lord of the universe. *AL HAMDU LILLAAHI RABBIL 'AALAMEEN*
3	Most Gracious, Most Merciful. *AR RAHMAANIR RAHEEM*
4	Master of the Day of Judgment. *MAALIKI YAWMID DEEN*
5	You alone we worship; You alone we ask for help. *EYYAAKA NA'BUDU, WA EYYAAKA NASTA'EEN*
6	Guide us in the right path; *EHDENAS SIRAATAL MUSTAQEEM*
7	the path of those whom You blessed; *SIRAATAL LAZINA AN'AMTA 'ALAYHIM* not of those who have deserved wrath, nor of the strayers. *GHAYRIL MAGHDOOBI 'ALAYHIM WALADDAALLEEN*

The five Contact Prayers (in Arabic, *Salat*) consist of 2, 4, 4, 3 and 4 units respectively, and The Key is recited in Arabic once per each unit, i.e., a total of 17 times during the Contact Prayers each day. Interestingly, if you place the chapter number (1) next to the number of verses (7), you get "1 7", perhaps an indication that this chapter will be used in the seventeen units of the Contact Prayers.

Like every other aspect of the Quran, The Key, Al-Fãtehah is also mathematically coded. That coding seems to be especially appropriate because the sounds of these seven verses are like the combination to a lock. Opening that lock opens contact with our Creator. Thus, this Quranic chapter has special significance.

God willing, we hope to present aspects of the way the daily prayers are coded with the number nineteen in a future volume, though there may be some related findings presented here. This

volume will concentrate on the ways in which The Key, Al-Fãtehah is structured. Often the gematrical values of the letters of Al-Fãtehah are used in this coding. However as noted above, gematrical values need to be calculated from the Arabic. We have provided a transliteration that can be used for such calculations. Thus, Table 4 shows The Key, Al-Fãtehah in the Arabic script and a transliteration without vowel marks and pronunciation. The goal is to provide letters that can be used together with the data in Table 1 to verify gematrical values.

Arabic is read from right to left. Thus, the transliteration for the letters of Quran will be presented in opposite directions in English (left to right) and Arabic (right to left). Please note that to identify the transliteration for each Arabic letter, its English equivalent is listed below—first in the same order as the Arabic (right to left). Then as it is pronounced in English (left to right).

Table 4: The Key (Al-Fãtehah), with its transliteration

Verse	Arabic with Direct Transliteration for Gematrical Calculations

1

بسم   الله   الرحمن   الرحيم

MYḤRLA NMḤRLA HLLA MSB

　Left to right: BSM ALLH ALRḤMN ALRḤYM

2

الحمد   لله   رب   العلمين

NYMLaLA   BR   HLL DMḤLA

　Left to right: ALḤMD LLH RB ALaLMYN

3

الرحمن   الرحيم

MYḤRLA NMḤRLA

　Left to right: ALRḤMN ALRḤYM

4

ملك   يوم   الدين

NYDLA MWY KLM

　Left to right: MLK YWM ALDYN

5

إياك   نعبد   وإياك   نستعين

NYaTSN KAYAW DBaN KAYA

　Left to right: AYAK NaBD WAYAK NSTaYN

6

اهدنا   الصرط   المستقيم

MYQTSMLA ṬRṢLA ANDHA

　Left to right: AHDNA ALṢRṬ ALMSTQYM

صرط   الذين   أنعمت   عليهم

MHYLa TMaNA NYdLA ṬRṢ

　Left to right: ṢRṬ ALdYN ANaMT aLYHM

7

غير   المغضوب   عليهم   ولا   الضالين

NYLAḌLA ALW   MHYLa BWḌGMLA RYG

　Left to right: GYR ALMGḌWB aLYHM WLA ALḌALYN

Sura-level Proofs

Now that we have an overview of The Key, Sura 1, and know how to verify letters and gematrical values, let us examine some proofs. In this section, we begin with those that deal with the whole sura. The first four facts were published in the January 1990 issue of the Submitters Perspective by Rashad Khalifa, Ph.D.

Fact 1. To be able to look at the mathematical properties of a piece of literary text like Sura 1 we need to find a way to represent it using numbers. For this first fact let's represent this sura using its chapter and verse numbers. Sura 1 consists of seven verses. Take the sura number (1), followed by the number of each verse (1,2,3,4,5,6,7), next to each other. This number is a multiple of 19.

$$1 \ \ 1\,2\,3\,4\,5\,6\,7$$
$$(\mathbf{19} \text{ x } 591293)$$

Fact 2 a) Next, let us consider the number of letters in each verse of Sura 1. These are listed in Table 5.

Table 5: Number of Letters in each verse of The Key (Al-Fãtehah)

Verse	Number of Letters
1	19
2	17
3	12
4	11
5	19
6	18
7	43
Totals **28**	**139**

Start with Fact 1. This time, instead of using the verse number to represent each verse, let us use the number of letters in each verse. This number is also a multiple of 19.

$$1 \ \ 19 \ \ 17 \ \ 12 \ \ 11 \ \ 19 \ \ 18 \ \ 43$$
$$(\mathbf{19} \text{ x } 6272169010097)$$

Fact 2 b) While compiling Table 5, we observe that concatenating the totals of each column gives us: "28, 139" = **19** x 1481.

Fact 3. Table 6 below lists the number of letters and the gematrical values of each verse. Please note again that you can check the calculations against the Arabic in Table 8.

Gematrical values are a numerical representation of Arabic letters. Thus, gematrical values allow us to consider the mathematical literary composition of the Quran. Some of the facts we show you consider gematrical values of each letter individually, while others consider aggregated gematrical values (e.g., of the sura, verse or word).

Table 6: Each verse of The Key (Al-Fãtehah) with the count of letters and gematrical value

Verse	Number of Letters	Gematrical Value
1	19	786
2	17	581
3	12	618
4	11	241
5	19	836
6	18	1072
7	43	6009
Totals	**139**	**10143**

Using Fact 2, if we insert the gematrical value of each verse next to the number of letters in each verse, we get the following number, which is also a multiple of 19.

1 19 786 17 581 12 618 11 241 19 836 18 1072 43 6009

(**19** x 630453556901377953901044009530128211)

This number includes all major parameters of Sura 1 (letters and gematrical values) and consists of 38 digits (**19** x 2). The only structural item not included is the number of each verse. Next, let us examine inclusion of the verse numbers.

Fact 4. If we take Fact 3 and insert the verse number before the number of letters in each verse, we get a 45-digit number that is once again a multiple of 19. The likelihood of each successive change continuing to yield a 19-multiple purely by chance is extremely slim. Praise be to God.

1 1 19 786 2 17 581 3 12 618 4 11 241 5 19 836 6 18 1072 7 43 6009

(**19** x 58936116714805927284802185254558847751 28211)

Fact 5. The aggregate-level parameters for the sura are also mathematically coded. Let us take the sura number (1) followed by the total gematrical value (10143) of the sura. This number (10143) represents the value of all the letters in the sura.

1 10143

(**19** x 5797)

Fact 6. Let's also consider additional aggregate parameters for the sura. If we take the sura number (1) followed by the number of verses in the sura (7), followed by the number of letters (139) and the total gematrical value (10143) of the sura, we end up with a multiple of 19. See Table 6 for details. This confirms that each parameter is mathematically confirmed, both at the individual and aggregate level.

1 7 139 10143

(**19** x 90205797)

Fact 7. What if we weren't content with aggregate parameters, but instead wanted to verify that each letter in the chapter was precisely located? If we only used aggregate parameters of Sura 1, it would still permit rearrangement of letters within the chapter or a verse while retaining its mathematical structure. Rearrangement is not trivial, as the new sequence must still make sense, but for the sake of argument, let's assume this could be done. God's design of each letter within the chapter addresses this question. Let's take the sura number (1) followed by the number of letters (139) and follow this by the gematrical value of each letter in sequence. We get a 255-digit number that is a 19-multiple.

1, 139
2 60 40 1 30 30 5 1 30 200 8 40 50 1 30 200 8 10 40 1 30 8 40 4 30 30
5 200 2 1 30 70 30 40 10 50 1 30 200 8 40 50 1 30 200 8 10 40 40 30 20
10 6 40 1 30 4 10 50 1 10 1 20 50 70 2 4 6 1 10 1 20 50 60 400 70 10
50 1 5 4 50 1 1 30 90 200 9 1 30 40 60 400 100 10 40 90 200 9 1 30 700
10 50 1 50 70 40 400 70 30 10 5 40 1000 10 200 1 30 40 1000 800 6 2 70
30 10 5 40 6 30 1 1 30 800 1 30 10 50

(**19** x 599…950)

Note: the gematrical value system of Arabic letters is designed in a way that the letters are non-ambiguous. An ambiguous system would be one where, for example, if we had two letters, one with a gematrical value of "1" and another with a gematrical value of "11", you could not be sure when you see "11" whether you had two adjacent letters with a gematrical value of "1", "1" or a single letter with a gematrical value of "11". God planned that the gematrical value sequence of Arabic (see: Table 1) would be designed in a way that this issue does not arise. So, when you see a sequence such as "2 60 40 …", there's no ambiguity as to which letters are represented.

Fact 8. What if we wanted to verify that each letter is correctly located *within* each verse? Once again, God designed the chapter to take this question into account. This fact takes the number of letters in a verse in addition to the gematrical value. It uses the sura number (1), the number of verses (7), and the following sequence of numbers for each verse: (verse number, number of letters, and the gematrical value of each individual letter within the verse). Thus, all major parameters of the chapter and each verse are accounted for.

To understand the numerical sequence used for each verse, consider Verse 1. Begin with "1" (verse number), then concatenate "19" (number of letters), and then concatenate the gematrical value of each letter in the first verse "2,60,40; 1,30,30,5; 1,30,200,8,40,50; 1,30,200,8,10,40". *Punctuation was added in this example for readability—a comma separates each letter, and semi-colons separate each word within the verse.*

We end up with the following 274-digit number which is a multiple of 19.
1 7
1 19, 2,60,40; 1,30,30,5; 1,30,200,8,40,50; 1,30,200,8,10,40
2 17, 1,30,8,40,4; 30,30,5; 200,2; 1,30,70,30,40,10,50
3 12, 1,30,200,8,40,50; 1,30,200,8,10,40
4 11, 40,30,20; 10,6,40; 1,30,4,10,50
5 19, 1,10,1,20; 50,70,2,4; 6,1,10,1,20; 50,60,400,70,10,50
6 18, 1,5,4,50,1; 1,30,90,200,9; 1,30,40,60,400,100,10,40
7 43, 90,200,9; 1,30,700,10,50; 1,50,70,40,400; 70,30,10,5,40; 1000,10,200,
       1,30,40,1000,800,6,2; 70,30,10,5,40; 6,30,1; 1,30,800,1,30,10,50

(**19** x 901…950)

Fact 9. Another way to verify that each letter is precisely located within each verse is to use the sequence number of every letter along with its gematrical value.

We start with the chapter number (1) followed by the number of verses (7).

Next, we add the verse number (e.g., 1). Then, for each letter within the verse, we take: (the letter's sequence (seq) within the sura, and the gematrical value (GV) of the letter).

So, for verse 1: "بسم الله⬚لرحمن⬚لرحيم", we get: 1 (verse number), 1(seq), 2(GV of the first letter) 2(seq), 60(GV of the second letter) 3,40 4,1 5,30 6,30 7,5 8,1 9,30 10,200 11,8 12,40 13,50 14,1 15,30 16,200 17,8 18,10 19,40. The entire number is 569 digits long and a multiple of 19.

1, 7

1, 1,2 2,60 3,40 4,1 5,30 6,30 7,5 8,1 9,30 10,200 11,8 12,40 13,50 14,1 15,30 16,200 17,8 18,10 19,40

2, 20,1 21,30 22,8 23,40 24,4 25,30 26,30 27,5 28,200 29,2 30,1 31,30 32,70 33,30 34,40 35,10 36,50

3, 37,1 38,30 39,200 40,8 41,40 42,50 43,1 44,30 45,200 46,8 47,10 48,40

4, 49,40 50,30 51,20 52,10 53,6 54,40 55,1 56,30 57,4 58,10 59,50

5, 60,1 61,10 62,1 63,20 64,50 65,70 66,2 67,4 68,6 69,1 70,10 71,1 72,20 73,50 74,60 75,400 76,70 77,10 78,50

6, 79,1 80,5 81,4 82,50 83,1 84,1 85,30 86,90 87,200 88,9 89,1 90,30 91,40 92,60 93,400 94,100 95,10 96,40

7, 97,90 98,200 99,9 100,1 101,30 102,700 103,10 104,50 105,1 106,50 107,70 108,40 109,400 110,70 111,30 112,10 113,5 114,40 115,1000 116,10 117,200 118,1 119,30 120,40 121,1000 122,800 123,6 124,2 125,70 126,30 127,10 128,5 129,40 130,6 131,30 132,1 133,1 134,30 135,800 136,1 137,30 138,10 139,50

(**19** x 900…050)

Table 7: Occurrences of "B's" and "M's" in Chapter 1

	Word	Letter	Value
1.	Bism *(BSM)*	B	2
2.	Bism *(BSM)*	M	40
3.	Al-Rahman *(ALRḤM)*	M	40
4.	Al-Rahim *(ALRḤYM)*	M	40
5.	Al-Hamdu *(ALḤMD)*	M	40
6.	Rabb *(RB)*	B	2
7.	Al-`Alamin *(ALaLMYN)*	M	40
8.	Al-Rahman *(ALRḤM)*	M	40
9.	Al-Rahim *(ALRḤYM)*	M	40
10.	Malik *(MLK)*	M	40
11.	Yawm *(YWM)*	M	40
12.	Na`budu *(NaBD)*	B	2
13.	Al-Mustaqim *(ALMSTQYM)*	M	40
14.	Al-Mustaqim *(ALMSTQYM)*	M	40
15.	An`amta *(ANaMT)*	M	40
16.	`Alayhim *(aLYHM)*	M	40
17.	Al-Maghdub *(ALMGḌWB)*	M	40
18.	Al-Maghdub *(ALMGḌWB)*	B	2
19.	`Alayhim *(aLYHM)*	M	40
Total			**608** (19 x 32)

Fact 10. Chapter 1, The Key (Al-Fãtehah) is recited in Arabic in the daily Contact Prayers (Salat). If you count the number of times your lips touch when reciting the chapter, it is exactly 19 times. There are 4 "B's" and 15 "M's" in this chapter, and 4 +15 add up to 19. See Table 7 to verify these results. Note that unlike English, Arabic does not have a letter with a "P" sound. Pronouncing the "B" and "M" sounds are the only times when your lips touch.

Fact 11. Each "B" in the Arabic has a gematrical value of 2. Each "M" has a gematrical value of 40. The gematrical value of the 4 "B's" is 4 x 2 = 8, and the gematrical value of the 15 "M's" is 15 x 40 = 600. The total gematrical value of the 4 "B's" and the 15 "M's" is 608, which is a multiple of **19** (see Table 7).

The previous two facts were published in the January 1990 bonus issue of the Submitters Perspective by Rashad Khalifa, Ph.D., where he explains that it confirms that "The Key" (Sura 1) of the Quran must be recited in Arabic in the Contact Prayers.

Fact 12. The following fact considers the addition of the concatenated gematrical values of each verse. This is an alternative representation of the literary content of a verse. Adding the chapter number (1) + the number of each verse (e.g., 1) + the concatenated gematrical value of each letter for each verse we get a multiple of 19.
As an example, for the first verse, you would concatenate the following gematrical values corresponding to each letter: "2 60 40 1 30 30 5 1 30 200 8 40 50 1 30 200 8 10 40".
This again shows us that each letter within each verse is precisely located.

```
 1 +
 1 + 2604013030513020008405013020081040 +
 2 + 13084043030520021307030401050 +
 3 + 1302008405013020081040 +
 4 + 4030201064013041050 +
 5 + 110120507024611012050604000701050 +
 6 + 15450113090200913040604001001040 +
 7 + 902009130700105015070404007030105401000102001304010008006270301054063011308001301050
 =
 902009130700105015070404007030105401000102001304010294882821189354644289369486607349
 = 19 x 4747 … 4071
```

Fact 13 a). So far, we have not considered the number of words in Al-Fãtehah. It's most often accepted that there are 29 words in this sura (please see Wikipedia or The Quranic Arabic Corpus at http://corpus.quran.com/wordbyword.jsp). Please also see the section titled "Alternative Linguistic Discussion" for proofs using 28 words, as accepted by some.

If we take the sura number (1) followed by the number of verses in the sura (7), followed by the number of words (29), we end up with a multiple of 19

<p style="text-align:center">1 7 29</p>

<p style="text-align:center">(19 x 91)</p>

Fact 13 b) Further, the digits of this number, 1729, added to each other, 1 + 7 + 2 + 9, sum to 19.

Fact 14 a) Next, let's delve deeper into the structure of each word in the sura. We start with the number in Fact 13 and then concatenate for each word: the "word number" followed by the "number of letters" in that word. So, for the first word (بسم / BSM), which has 3 letters, we use "1,3". For the second word (الله /ALLH) we use "2,4". The number of letters for each word can be found in Table 8. Please note that the columns of this table have been numbered for ease of reference. We end up with an 82-digit number that is a multiple of 19.

1 7 29 1,3 2,4 3,6 4,6 5,5 6,3 7,2 8,7 9,6 10,6 11,3 12,3 13,5 14,4 15,4
16,5 17,6 18,5 19,5 20,8 21,3 22,5 23,5 24,5 25,3 26,7 27,5 28,3 29,7

(**19** x 91006970340292827831374005953849218113377114536062905695 43
2907118171224593 435963)

Fact 14 b) Since the number we started with in Fact 13 (1, 7, 29) was also a multiple, it goes without saying that if we remove the "1729" and only consider each word and the number of letters in it, it is also a multiple. For those familiar with the book "Beyond Probability" by Abdullah Arik, which focused on the remarkable mathematical properties of the Basmalah (the first verse of Sura 1), you will recognize this pattern as an extension of Fact 2 from that book. The pattern used for the first verse (1,3 2,4 3,6 4,6 = 19 x 19 x 36686) is extended to cover the whole sura.

1,3 2,4 3,6 4,6 5,5 6,3 7,2 8,7 9,6 10,6 11,3 12,3 13,5 14,4 15,4 16,5 17,6 18,5
19,5 20,8 21,3 22,5 23,5 24,5 25,3 26,7 27,5 28,3 29,7

(**19** x 6970340292827831374005953849218113377114536062905695432
9071181712245934359 63)

Fact 15. You may be looking for a more intricate pattern. This fact includes the structure, shown by the number of letters within each word, and the literary composition, shown by the gematrical value of each word within each verse.

Let us take the sura number followed by the verse number for each verse. Then within each verse let us consider each word. We use the word number, the number of letters in that word, and the gematrical value of that word. These parameters are in Table 8.

Thus, we start with 1 (sura number). Then, we write *1* (verse number), followed by 1 (word number for بسم / BSM; Table 8 column 3), 3 (number of letters in BSM; Table 8 column 4), 102 (gematrical value of BSM; Table 8 column 5).
This is followed by 2 (word number for الله /ALLH), 4 (number of letters in ALLH), 66 (gematrical value of ALLH), and so on. This produces a 165-digit number that is a multiple of 19.

1 *1* 1,3,102; 2,4,66;   3,6,329; 4,6,289;
2 5,5,83; 6,3,65;   7,2,202; 8,7,231;
3 9,6,329; 10,6,289;
4 11,3,90; 12,3,56; 13,5,95;
5 14,4,32; 15,4,126; 16,5,38; 17,6,640;
6 18,5,61; 19,5,330; 20,8,681;
7 21,3,299; 22,5,791; 23,5,561; 24,5,155; 25,3,1210; 26,7,1879; 27,5,155; 28,3,37; 29,7,922

(**19** x 585843287703331296259241244030115940648103331108573374
41585450597871128590284874554640875822029536596326772722175259083111766111
81660659537382483575132396228278838)

Table 8: Each word in Al-Fātehah along with number of letters and gematrical value

(1) Verse	(2) Word	(3) Word number	(4) Number of Letters	(5) Gematrical value of entire word (GVW)	(6) Gematrical value of each letter in the word (GVL)
1	بسم	1	3	102	2,60,40
	الله	2	4	66	1,30,30,5
	الرحمن	3	6	329	1,30,200,8,40,50
	الرحيم	4	6	289	1,30,200,8,10,40
2	الحمد	5	5	83	1,30,8,40,4
	لله	6	3	65	30,30,5
	رب	7	2	202	200,2
	العلمين	8	7	231	1,30,70,30,40,10,50
3	الرحمن	9	6	329	1,30,200,8,40,50
	الرحيم	10	6	289	1,30,200,8,10,40
4	ملك	11	3	90	40,30,20
	يوم	12	3	56	10,6,40
	الدين	13	5	95	1,30,4,10,50
5	إياك	14	4	32	1,10,1,20
	نعبد	15	4	126	50,70,2,4
	وإياك	16	5	38	6,1,10,1,20
	نستعين	17	6	640	50,60,400,70,10,50
6	اهدنا	18	5	61	1,5,4,50,1
	الصرط	19	5	330	1,30,90,200,9
	المستقيم	20	8	681	1,30,40,60,400,100, 10,40
7	صرط	21	3	299	90,200,9
	الذين	22	5	791	1,30,700,10,50
	أنعمت	23	5	561	1,50,70,40,400
	عليهم	24	5	155	70,30,10,5,40
	غير	25	3	1210	1000,10,200
	المغضوب	26	7	1879	1,30,40,1000,800,6,2
	عليهم	27	5	155	70,30,10,5,40
	ولا	28	3	37	6,30,1
	الضالين	29	7	922	1,30,800,1,30,10,50

Fact 16. What if we wanted to confirm each letter within each verse and word? Let us start with the Sura number (1), the number of verses (7), the number of words (29).

Next, for each verse we begin with the verse number (e.g., *1* for the first verse).
Within each verse we represent each word. We begin with the word number for the first word, (e.g., 1 for بسم / BSM since it's the first word in the sura), followed by the number of letters in that word (e.g., 3 for BSM), followed by the gematrical value of each letter in that word, (e.g., 2,60,40 for BSM).

17

We repeat this process for each word in the verse. So, for the next word (الله /ALLH) we write: 2 (second word in the sura), 4 (number of letters), 1,30,30,5 (gematrical value of each letter). The process is repeated for each word in each verse.

Thus, this fact considers all the major parameters related to each word in sura 1. This 340-digit number is a multiple of 19. The data for this proof can be compared against Table 8.

1 7 29

1 1,3, 2,60,40; 2,4, 1,30,30,5; 3,6, 1,30,200,8,40,50; 4,6, 1,30,200,8,10,40

2 5,5, 1,30,8,40,4; 6,3, 30,30,5; 7,2, 200,2; 8,7, 1,30,70,30,40,10,50

3 9,6, 1,30,200,8,40,50; 10,6, 1,30,200,8,10,40

4 11,3, 40,30,20; 12,3, 10,6,40; 13,5, 1,30,4,10,50

5 14,4, 1,10,1,20; 15,4, 50,70,2,4; 16,5, 6,1,10,1,20; 17,6, 50,60,400,70,10,50

6 18,5, 1,5,4,50,1; 19,5, 1,30,90,200,9; 20,8, 1,30,40,60,400,100,10,40

7 21,3, 90,200,9; 22,5, 1,30,700,10,50; 23,5, 1,50,70,40,400; 24,5, 70,30,10,5,40;
25,3, 1000,10,200; 26,7, 1,30,40,1000,800,6,2; 27,5, 70,30,10,5,40; 28,3, 6,30,1;
29,7, 1,30,800,1,30,10,50

(**19** x 91005961073811212 1334805368863423480 5368847580290162318
2279108274738353319489684763366384316231842663843162160021
6494895795952968492173900265865321115870793170613479480008
0928979158263710851850236905006889579432006863475790000544
7748100105748691089479211763951073894866159479231712157900
010540375284263200032776685795021201910594585831585795008)

Fact 17. Another way to analyze and verify the structure of the sura is by considering the position of each word within each verse rather than within the sura.

For the next fact, let us consider the position of each word within a verse. For example, the first word of verse 1 (بسم / BSM) has a relative word position of "1". The second word (الله /ALLH) has a relative position of "2". The first word in verse 2 (الحمد ALḤMD) will have a relative position of "1" as it's the first word in that verse. Similarly, the first word in verse 3 (الرحمن ALRḤMN) will also have a relative position of "1".

We write down the sura number (1), followed by the verse number of the first verse (1). Within this verse we take the relative position of each word (e.g., "1" for بسم / BSM) and the number of letters (e.g., 3 for بسم / BSM). For verse 1, we get: 1,3 2,4 3,6 4,6.
Next, we take verse 2 followed by 1 (word position of الحمد ALḤMD), 5 (number of letters in الحمد ALḤMD), followed by: 2,3 3,2 4,7 for the remaining three words in the verse.
We do this for all 7 verses.

The resulting 66-digit number is a multiple of 19. This confirms that each word with its exact number of letters has been perfectly placed within each verse. The data for this fact can be checked against the first four columns of Table 9. The columns of Table 9 have been numbered for ease of reference. (Note: the fifth column of the table will be used later, God willing.)

1
1, 1,3, 2,4, 3,6, 4,6;
2, 1,5, 2,3, 3,2, 4,7;
3, 1,6, 2,6;
4, 1,3, 2,3, 3,5;
5, 1,4, 2,4, 3,5, 4,6;
6, 1,5, 2,5, 3,8;
7, 1,3, 2,5, 3,5, 4,5, 5,3, 6,7, 7,5, 8,3, 9,7

(**19** x 585917708534333288061191648597639075550850133616487028712461 8863)

Table 9: Each word in Al-Fãtehah: relative position within a verse and number of letters

(1) Verse	(2) Word	(3) Word position (within verse)	(4) Number of Letters	(5) Gematrical value of entire word (GVW)
1	بسم	1	3	102
	الله	2	4	66
	الرحمن	3	6	329
	الرحيم	4	6	289
2	الحمد	1	5	83
	لله	2	3	65
	رب	3	2	202
	العلمين	4	7	231
3	الرحمن	1	6	329
	الرحيم	2	6	289
4	ملك	1	3	90
	يو	2	3	56
	الدين	3	5	95
5	إيا	1	4	32
	نعبد	2	4	126
	وإيا	3	5	38
	نستعين	4	6	640
6	اهدنا	1	5	61
	الصرط	2	5	330
	المستقيم	3	8	681
7	صرط	1	3	299
	الذين	2	5	791
	أنعمت	3	5	561
	عليهم	4	5	155
	غير	5	3	1210
	المغضوب	6	7	1879
	عليهم	7	5	155
	ولا	8	3	37
	الضالين	9	7	922

Fact 18. The next fact considers both aggregate and verse level data. Let us take all the major aggregate parameters for sura Al-Fãtehah, i.e., the sura number (1), the number of verses (7), the number of words (29), the number of letters in the sura (139), and the total gematrical value of the sura (10143).

Next, for each verse, we consider the verse number, the relative position of a word in the verse, and the gematrical value for the word in question.

For example, for the first verse we begin with the verse number (e.g., *1*). Then, we represent the contents of each verse using the following sequence: the relative position of each word (e.g., "1" for بسم / BSM; see Table 9 column 3), and the gematrical value of the word (e.g., 102 for بسم / BSM; Table 9 column 5). The second word (الله /ALLH) correspondingly has a relative position of "2" and a gematrical value of "66". For verse 1, we get: *1* (verse number) 1,102 2,66 3,329 4,289.
For verse 2 we get: *2* 1,83 2,65 3,202 4,231. We do this for all 7 verses. The resulting 127-digit number is a multiple of 19.

  1, 7, 29, 139, 10143
1 1,102, 2,66, 3,329, 4,289
2 1,83, 2,65, 3,202, 4,231
3 1,329, 2,289
4 1,90, 2,56, 3,95
5 1,32, 2,126, 3,38, 4,640
6 1,61, 2,330, 3,681
7 1,299, 2,791, 3,561, 4,155, 5,1210, 6,1879, 7,155, 8,37, 9,922

(**19** x 9100732112795316982280496259043823852759112175222575889
6086292174848754656003242754229903752593638716534500637167787976756838)

Fact 19. The next set of facts brings attention to the letters in this chapter.

Sura 1, the Al-Fãtehah, is made up of 21 unique letters. The sura has 139 letters in all, making up its 29 words. If we add up these structural parameters of Sura 1, we get $1 + 21 + 139 + 29 = 190$ (a multiple of 19).

$$190$$
$$(\textbf{19} \text{ x } 10)$$

Fact 20. Take each Arabic letter in the Al-Fãtehah and write down the verse in which it first appears, and the gematrical value of the letter. The data is in Table 10. Sura 1 has 139 letters in all, but only 21 unique letters, i.e., many letters are repeated. So, we also calculate the position that each of the 21 letters *first* occurs. The letters are listed in order of first appearance in the sura.

Now we are ready to start. Take the sura number (1). Then, for each letter appearing in the sura, take the verse it first appears followed by the gematrical value of the letter. So, for the first letter "ب (B)" we would take: 1,2. For the "س (S)" we take 1,60. We continue till we reach the "ض (D)" which we represent by 7,800. The final number is a multiple of 19. This shows us the precision of how each letter was used by the Almighty Author of this sura.

1 1,2 1,60 1,40 1,1 1,30 1,5 1,200 1,8 1,50 1,10 2,4 2,70 4,20 4,6 5,400
6,90 6,9 6,100 7,700 7,1000 7,800
(**19** x 59031652690158690 5272710584338265370 8705299510321093161 6316200)

Table 10: Occurrences of each letter in Al-Fãtehah with verse, gematrical value, & position

	Letter	Verse	Gematrical value of letter	Position of First Occurrence
1	ب	1	2	1
2	س	1	60	2
3	م	1	40	3
4	ا	1	1	4
5	ل	1	30	5
6	ه	1	5	7
7	ر	1	200	10
8	ح	1	8	11
9	ن	1	50	13
10	ي	1	10	18
11	د	2	4	24
12	ع	2	70	32
13	ك	4	20	51
14	و	4	6	53
15	ت	5	400	75
16	ص	6	90	86
17	ط	6	9	88
18	ق	6	100	94
19	ذ	7	700	102
20	غ	7	1000	115
21	ض	7	800	122
	Totals		**3605**	**916**

Fact 21. Let us consider for each of the 21 letters the position in which it first occurs within the 139 letters across the entire chapter. The data is in the last column of Table 10.

We use this data as another representation of Sura 1 as follows: 1 (Sura number) 21 (number of distinct letters), followed by the gematrical value for each letter and the position of its first occurrence. For example, for "ب (B)" we take: 2 (gematrical value),1 (first letter in the sura). For "س (S)" we take 60 (gematrical value), 2 (second letter overall in the sura) and so on. We end up with the following number, which is a multiple of 19 *twice over*.

1 21 2,1 60,2 40,3 1,4 30,5 5,7 200,10 8,11 50,13 10,18 4,24 70,32 20,51 6,53 400,75 90,86 9,88 100,94 700,102 1000,115 800,122

(**19** x **19** x 33577845992086026 9252377049897789037313911500424932850656476733925210584487855402)

Fact 22 a) Additional Structural properties of distinct letters.
In Table 10, the total of the "positions of first occurrence" of each distinct letter in the sura is 916. By adding 1 (sura number) + 916 + 3605 (total gematrical value of *distinct letters*) we get 4522, a multiple of 19.

<div align="center">

4522

(**19** x 238)

</div>

Fact 22 b) Also, if we wanted to consider the gematrical values of the distinct letters and all the letters together, we have the following fact. We can add 1 (sura number) + 7 (number of verses) + 3605 (total gematrical value of *distinct letters*) + 10143 (total gematrical value of *all letters* in the sura) to obtain 13756 (a multiple of 19).

<div align="center">

13756

(**19** x 724)

</div>

Fact 23. Once again, let us take each Arabic letter in the Al-Fãtehah and this time we compile the number of times each letter appears or occurs in the chapter; we get the data in Table 11. The letters are listed in order of first appearance in the chapter. The table also lists the gematrical value of each of the letters. Concatenating the numbers in this table, i.e., "4 2 3 60 … 2 800" gives us a 68-digit number that is a multiple of **19.**

Table 11: Occurrences of each letter in Al-Fãtehah along with gematrical value

Letter	Number of Occurrences	Gematrical value of letter
ب	4	2
س	3	60
م	15	40
ا	22	1
ل	22	30
ه	5	5
ر	8	200
ح	5	8
ن	11	50
ي	14	10
د	4	4
ع	6	70
ك	3	20
و	4	6
ت	3	400
ص	2	90
ط	2	9
ق	1	100
ذ	1	700
غ	2	1000
ض	2	800

Fact 24. The discoverer of the mathematical encoding in the Quran, Rashad Khalifa, Ph.D., included an article entitled "The Names of Suras Divinely Decreed" in his last *Submitters Perspective* newsletter for March 1990, which he had published in advance of his passing. This concept opens another avenue for research on the code in the Quran.

So far, we have not considered the title of the chapter, Al-Fātehah, in structural representations. God gives us evidence that this too is mathematically coded, thus affirming that the Almighty Author of the Quran is the One who determined the names of the chapters.

To represent the chapter name numerically, we use its gematrical value, 525 from Table 12. The title of the chapter has 7 letters, which is the same count as the number of verses in the chapter. If you add 525 + 7 you get 532, a multiple of 19.

<div align="center">

532

(**19** x 28)

</div>

Table 12: Gematrical value of the title of Sura 1, Al-Fātehah (الفاتحة)

Letter in Title	Gematrical Value of each letter
ا	1
ل	30
ف	80
ا	1
ت	400
ح	8
ه	5
Total	**525**

Fact 25. The next fact concatenates the chapter number (1) followed by the gematrical value of the chapter title (525) and the number of verses (7—as observed previously, 7 is also the number of letters in the sura title). It is a multiple of 19. This fact once again shows us that the titles of the suras have been designed and mathematically coded by the Almighty Author of the Quran. Praise be to God.

<div align="center">

1 525 7

(**19** x 803)

</div>

Fact 26 a) A skeptic may ask whether the sura title "Al-Fātehah" can be replaced with another word with the same gematrical value of 525. To address this, let us use a sequence comprising the gematrical values of each letter (see Table 12). In other words, we are spelling out the chapter name, letter by letter.

Take Fact 25 and replace "525" (the aggregate gematrical value of the title "Al-Fãtehah") with the gematrical value of each letter in "Al-Fãtehah", i.e., "1, 30, 80, 1, 400, 8, 5" (commas added for readability). We end up with a multiple of 19.

1   1 30 80 1 400 8 5   7

(**19** x 59515863203)

Note, as discussed previously, the gematrical value system of Arabic letters is designed in a way that the letters are non-ambiguous. Therefore, we can be sure when we see the sequence "1 30 80 1 400 8 5", that it spells out "Al-Fãtehah" in the Arabic. Praise be to God.

Fact 26 b) Additionally when we sum the digits 1+1+3+0+8+0+1+4+0+0+8+5+7+7 we get 38 which is **19** x 2.

Fact 27. Building on Fact 25, we want to confirm that it's not just any 7 verses, but specifically the ones in Sura 1. So, let us use the parameters of individual verses instead of the aggregate number of verses. We begin with the chapter number (1) followed by the gematrical value of the title, "Al-Fãtehah" (525). To this we concatenate the parameters seen in Table 5, i.e., the verse number and number of letters for each verse. This number is a multiple of 19.

1   525   1 19   2 17   3 12   4 11   5 19   6 18   7 43

(**19** x 80269432490126922085197)

Fact 28. This fact contains the sura number (1), the gematrical value of Al-Fãtehah (525), followed by the verse number, and number of letters in the verse for each verse.

To confirm it is not any sura title with a gematrical value of 525, let us replace "525" (sum of the gematrical value of the sura title Al-Fãtehah) with "1 30 80 1 400 8 5" (gematrical values of individual letters in "Al-Fãtehah"). We end up with the following number which is a multiple of 19. Praise be to God.

1   *1 30 80 1 400 8 5*   1 19   2 17   3 12   4 11   5 19   6 18   7 43

(**19** x 59515863202694324901269220085197)

Fact 29. If we add the sura number (1) + gematrical value of the chapter title (525) + the number of letters in the chapter (139), we get 665, a multiple of 19.

665

(**19** x 35)

Fact 30. To tie in the sura title with the structural proofs for the sura, we modify Fact 4. We start with the sura number "1". Then we write down the number of letters in "Al-Fãtehah" (7) followed by the gematrical value of each of the 7 letters, i.e., "1 30 80 1 400 8 5". Thereafter, we include the structural parameters of each verse in Sura 1. We write the verse number, number of letters, and gematrical value of the verse.

This gives us a 57-digit number (57 = 19 x 3) that is a multiple of 19. Praise God.

1, *7* 1 30 80 1 400 8 5
1 19 786   2 17 581   3 12 618   4 11 241   5 19 836   6 18 1072   7 43 6009
        (**19** x 9016211263605893611671480592728480218525455884775128211)

Fact 31. If we still have doubts about the sura title chosen for Sura 1, we can spell out each of the 7 letters of "Al-Fãtehah", as well as each of the 139 letters in the chapter. This is a modification of Fact 7, where we're inserting the sura title spelled out by the gematrical values of its letters.

Begin by taking the sura number "1" followed by "*7*" for the number of letters in the sura title. Then we place the gematrical value of each of the seven letters of "Al-Fãtehah". We follow this with "*139*" (the number of letters in the sura) and the gematrical value of each letter in the sura. We get a 267-digit number.

1, *7*, 1 30 80 1 400 8 5,
139 2 60 40 1 30 30 5 1 30 200 8 40 50 1 30 200 8 10 40 1 30 8 40 4
30 30 5 200 2 1 30 70 30 40 10 50 1 30 200 8 40 50 1 30 200 8 10 40
40 30 20 10 6 40 1 30 4 10 50 1 10 1 20 50 70 2 4 6 1 10 1 20 50 60
400 70 10 50 1 5 4 50 1 1 30 90 200 9 1 30 40 60 400 100 10 40 90 200
9 1 30 700 10 50 1 50 70 40 400 70 30 10 5 40 1000 10 200 1 30 40 1000
800 6 2 70 30 10 5 40 6 30 1 1 30 800 1 30 10 50
                        (**19** x 901 … 950)

This is a multiple of 19. What this confirms for us once again is that this chapter title is precisely constructed by God.

Fact 32. We can also modify Fact 8 to include the sura title with the number of letters (7), and each letter of the sura title spelled out using its gematrical value (1 30 80 1 400 8 5).

This gives us the sura number (1), the number of letters in the title (7), the gematrical representation of the sura title (1 30 80 1 400 8 5), the number of verses (7), and a representation of each verse that contains (the verse number, number of letters, gematrical value of each letter). This is a 286-digit number that is a multiple of 19.

1, *7*, 1 30 80 1 400 8 5,
7
1 19, 2 60 40, 1 30 30 5, 1 30 200 8 40 50, 1 30 200 8 10 40
2 17, 1 30 8 40 4, 30 30 5, 200 2, 1 30 70 30 40 10 50
3 12, 1 30 200 8 40 50, 1 30 200 8 10 40
4 11, 40 30 20, 10 6 40, 1 30 4 10 50
5 19, 1 10 1 20, 50 70 2 4, 6 1 10 1 20, 50 60 400 70 10 50
6 18, 1 5 4 50 1, 1 30 90 200 9, 1 30 40 60 400 100 10 40
7 43, 90 200 9, 1 30 700 10 50, 1 50 70 40 400, 70 30 10 5 40, 1000 10 200,
        1 30 40 1000 800 6 2, 70 30 10 5 40, 6 30 1, 1 30 800 1 30 10 50
                        (**19** x 901…950)

Fact 33. We can also modify Fact 9 to include the sura title with the number of letters (7), and again each letter of the sura title spelled out by its gematrical value (1 30 80 1 400 8 5). This gives us a 581-digit number that is a multiple of 19. Praise God! (We recommend the reader refer to Fact 9 for its description, as it is a long, complex number.)

1,

7, 1 30 80 1 400 8 5,

7

1, 1,2 2,60 3,40 4,1 5,30 6,30 7,5 8,1 9,30 10,200 11,8 12,40 13,50 14,1 15,30 16,200 17,8 18,10 19,40

2, 20,1 21,30 22,8 23,40 24,4 25,30 26,30 27,5 28,200 29,2 30,1 31,30 32,70 33,30 34,40 35,10 36,50

3, 37,1 38,30 39,200 40,8 41,40 42,50 43,1 44,30 45,200 46,8 47,10 48,40

4, 49,40 50,30 51,20 52,10 53,6 54,40 55,1 56,30 57,4 58,10 59,50

5, 60,1 61,10 62,1 63,20 64,50 65,70 66,2 67,4 68,6 69,1 70,10 71,1 72,20 73,50 74,60 75,400 76,70 77,10 78,50

6, 79,1 80,5 81,4 82,50 83,1 84,1 85,30 86,90 87,200 88,9 89,1 90,30 91,40 92,60 93,400 94,100 95,10 96,40

7, 97,90 98,200 99,9 100,1 101,30 102,700 103,10 104,50 105,1 106,50 107,70 108,40 109,400 110,70 111,30 112,10 113,5 114,40 115,1000 116,10 117,200 118,1 119,30 120,40 121,1000 122,800 123,6 124,2 125,70 126,30 127,10 128,5 129,40 130,6 131,30 132,1 133,1 134,30 135,800 136,1 137,30 138,10 139,50

(**19** x 901…050)

Fact 34. The position of each letter in Sura 1 can be represented in two ways. First, there is the absolute position within the chapter. The chapter has 139 letters, so letters will have positions from 1 to 139. Additionally, each letter has a relative position within each verse. Table 13: Sura ("Absolute") position and Verse ("Relative") position of each letter summarizes the absolute (sura) and relative (verse) position of each letter.

If we take the sura number (1) followed by the number of verses (7) in the sura, followed by the absolute and relative position of each letter (e.g., "1,1" for the first letter ب in the sura, or "139, 43" for the last letter in the sura which is the 43rd letter in verse 7), we end up with a long 526-digit number. This number is a 19 multiple.

1 7   1,1 2,2 … 138,42 139,43

(**19** x 9006…)

Table 13: Sura ("Absolute") position and Verse ("Relative") position of each letter

Letter	Absolute position	Relative position
ب	1	1
س	2	2
م	3	3
ا	4	4
ل	5	5
ل	6	6
ه	7	7
ا	8	8
ل	9	9
ر	10	10
ح	11	11
م	12	12
ن	13	13
ا	14	14
ل	15	15
ر	16	16
ح	17	17
ي	18	18
م	19	19
ا	20 (20th letter in sura)	1 (1st letter of verse 2)
ل	21	2
	…	
ص	97	1 (1st letter of verse 7)
ر	98	2
ط	99	3
	…	
ل	137	41 (41st letter of verse 7)
ي	138	42
ن	139	43 (43rd letter of verse 7)

Fact 35 a) On the 27th night of Ramadan 13 B.H. (Before Hijerah), Muhammad the soul, the real person, not the body, was summoned to the highest universe and the Quran was given to him (Quran 2:97, 17:1, 44:3, 53:1-18, 97:1-5). Subsequently, the angel Gabriel helped Muhammad release a few verses of the Quran at a time, from the soul to Muhammad's memory. The Prophet wrote down and memorized the verses just released into his mind. When the Prophet died, he left the complete Quran written down with his own hand in the chronological order of revelation, along with specific instructions as to where to place every verse (*Quran The Final Testament*, Appendix 28). The divine instructions recorded by the Prophet were designed to put the Quran together into the final format intended for God's Final Testament to the world (75:17).

Al-Fãtehah was the fifth chapter in chronological order of revelation (the first was Sura 96). Table 14 lists the first five chapters in chronological order of revelation and the number of verses in each.

Table 14: First five chapters revealed with number of verses

Chronological order	Chapter number	Number of Verses
1	96	19
2	68	52
3	73	20
4	74	56
5	1	7

If we concatenate for each chapter the chronological sequence followed by the chapter number and number of verses, we get the following number, which is a multiple of 19.

1 96 19   2 68 52   3 73 20   4 74 56   5 1 7

(**19** x 1032593080196423550343)

Fact 35 b) If we add the Sura number (1) + the chronological or revelation order of Sura 1 (5) + the number of verses (7) + the number of letters in the sura (139) we get 152, a multiple of 19.

152

(**19** x 8)

Proofs for Individual Verses

Fact 36. The proofs presented so far considered the chapter as a whole. Next, we discuss mathematical findings related to individual verses of Sura 1. Most of the following facts are presented in *Direct Contact: The Muslim Contact Prayer and Its Mathematical Encoding* by Ihsan Ramadan (BSM Press, 2002).

The first verse of Al-Fãtehah is known as the Basmalah and is made up of 19 Arabic letters making up 4 Arabic words: *BSM ALLH ALRḤMN ALRḤYM* (In the name of God, Most Gracious, Most Merciful.)

Each of those four Arabic words occurs within the text of the Quran in multiples of 19. There are over thirty other divisible parameters tied to this first verse. They have been presented in the first monograph in this series, entitled *The Opening Statement of the Quran (The Basmalah)* by Abdullah Arik (United Submitters International, 2012).

Fact 37. The second verse is: *ALḤMD LLH RB ALaLMYN* (Praise be to God, Lord of the Universe.)

This phrase occurs in the Quran 7 times in 1:2, 6:45, 10:10, 37:182, 39:75, 40:65 and 45:36.

If we write the sura and verse number for each of these occurrences in a line and follow these with the number of verses containing this phrase (7) you form a 27-digit number which is a multiple of 19:

  1 2 6 45 10 10 37 182 39 75 40 65 45 36 7 = **19** x 66553163353359156600344493

Fact 38. The third verse is: *ALRḤMN ALRḤYM* (Most Gracious, Most Merciful.)

It is made up of two words, which were also in the *Basmalah*. *ALRḤMN* occurs in the Quran 57 times, which is 19 times 3; and *ALRḤYM* occurs 114 times, or **19** times 6.

Fact 39. The word *ALRḤMN* has a gematrical value of 329 and *ALRḤYM* a gematrical value of 289.

ALRḤMN (Most Gracious)	1 + 30 + 200 + 8 + 40 + 50	= 329
ALRḤYM (Most Merciful)	1+ 30 + 200 + 8 + 10 + 40	= 289

If you concatenate the gematrical values of the two words, the resulting number is a 19 multiple.

$$329\ 289$$

$$(\mathbf{19} \times 17331)$$

Fact 40. The fourth verse is: *MLK YWM ALDYN* (Master of the Day of Judgment).

The Arabic word *MLK* (Master) occurs in the Quran 3 times: 1:4, 3:26 and 43:77. However, in 43:77 it does not refer to God but is the name of the guardian angel of Hell. Thus, we exclude that

occurrence and take only the ones referring to God. Write down the sura and verse numbers in a line, as we have done before: 1 4 3 26 = **19** x 754.

Fact 41. Let's consider additional parameters of verse four. If we concatenate the sura number (1), verse number (4), number of letters in the verse (11) and the gematrical value of the whole verse (241) followed by the gematrical value of each letter of the verse (40, 30, 20, 10, 6, 40, 1, 30, 4, 10, 50) we get:

$$1 \ 4 \ \ 11 \ \ 241 \ \ 40 \ 30 \ 20 \ 10 \ 6 \ 40 \ 1 \ 30 \ 4 \ 10 \ 50$$
$$(\textbf{19} \ x \ 742758633168477053317950)$$

Fact 42. The fifth verse is: *AYAK NaBD WAYAK NSTaYN* (You alone we worship. You alone we ask for help). The verse has **19** Arabic letters.

Fact 43. The total gematrical value of this verse is divisible by 19.

A Y A K   N a B D
1+10+1+20   +   50+70+2+4 +

W A Y A K   N S T a Y N
6+ 1+10+1+20 +   50+60+400+70+10+50   = 836 = **19** x 44

Fact 44. The following table shows the four words in verse 5. It also shows us the position of that word in the verse (column 2) and the sura (column 3) and the number of letters in the verse (column 4).

Table 15: Each word in verse 5 and word properties

(1) Word	(2) Word position (within verse)	(3) Word position (within sura)	(4) Number of Letters
إياك	1	14	4
نعبد	2	15	4
وإياك	3	16	5
نستعين	4	17	6

Consider the position of each word in the verse and the corresponding position of that word in the sura, i.e., numbers in columns (2) and (3) of Table 15. Concatenating these numbers together give us the following multiple of 19.

$$1 \ 14, \ \ 2 \ 15, \ \ 3 \ 16, \ \ 4 \ 17$$
$$(\textbf{19} \ x \ 6011332443)$$

Fact 45. Next, we also include the number of letters in each of the words. This once again gives us a multiple of 19. Praise be to God.

$$1\ 14\ 4,\ \ 2\ 15\ 4,\ \ 3\ 16\ 5,\ \ 4\ 17\ 6$$

$$(\mathbf{19} \times 60221864823904)$$

Fact 46. Additionally, the word *NaBD* (we worship) occurs in the Quran 7 times in the following verses: 1:5, 2:133, 3:64, 7:70, 11:62, 14:35 and 26:71.

However, the last 3 occurrences do not refer to God and so are excluded. If we add the chapter and verse numbers for the verses that refer to God, we get: $1 + 5 + 2 + 133 + 3 + 64 + 7 + 70 = 285 = \mathbf{19} \times 15$.

The other words of this phrase occur in the Quran only in this verse.

Fact 47. The sixth verse is, *AHDNA ALṢRṬ ALMSTQYM* (Guide us in the right path).

This is also coded in two parts. When we look at the gematrical value of the word *AHDNA* and include the chapter and verse we get:

```
 A H  D  N   A        1:6
 1 5  4  50  1        1 6        = 15450116 = 19 x 813164
```

Fact 48. The word *ṢRṬ* or "Path" occurs throughout the Quran 38 times, or **19** times 2.

Fact 49. The phrase made up of *ṢRṬ* with *ALMSTQYM* occurs in 27 verses within **19** chapters in the Quran. To demonstrate this the following list has the chapter numbers in bold: **1**:6; **2**:142,213; **3**:51,101; **5**:16; **6**:39,87,161; **7**:16; **10**:25; **11**:56; **15**:41; **16**:76,121; **19**:36; **22**:54; **23**:73; **24**:46; **36**:4,61; **37**:118; **42**:52; **43**:43,61,64; **67**:22.

Fact 50. Write the chapter and verse numbers for each of the occurrences seen in the previous fact in a line, repeating the chapter number where there is more than one verse in a chapter, and then add 27 for the number of occurrences at the end. The 104-digit number that is formed is divisible by **19**.

$$1\,6\ \ 2\,142\ \ 2\,213\ \ 3\,51\ \ 3\,101\ \ \ 5\,16\ \ \ 6\,39\,6\,87\,6\,161\ \ \ 7\,16$$
$$10\,25\ \ \ 11\,56\ \ \ 15\,41\ \ \ 16\,76\,16\,121\ \ \ 19\,36\ \ \ 22\,54\ \ \ 23\,73$$
$$24\,46\ \ \ 36\,4\,36\,61\ \ \ 37\,118\ \ \ 42\,52\ \ \ 43\,43\,43\,61\,43\,64\ \ \ 67\,22\ \ \ \ 27$$

$$(\mathbf{19} \times 8533801122901632377178782955879794869029554798295585325$$
$$9801338091181387598217743075012812334812445 6433)$$

Fact 51. Also, when we add chapter and verse numbers, including chapter repetitions as before, plus 27 for the number of occurrences, we get 2356, or **19** times 124.

$$1+6+2+142+2+213+3+51+3+101+5+16+6+39+6+87+6+161+7+16+10+25+11+56+15+41+16$$
$$+76+16+121+19+36+22+54+23+73+24+46+36+4+36+61+37+118+42+52+43+43+43+61+43$$
$$+64+67+22+27$$

$$= 2356 = \textbf{19} \times 124$$

Fact 52. The last verse is:
ṢRṬ ALdYN ANaMT aLYHM (the path of those whom You blessed;)
GYR ALMGḌWB aLYHM (not of those who have deserved wrath,)
WLA ALḌALYN (nor of the strayers).

There are 43 Arabic letters in this verse. Start with 1:7 (chapter and verse number) and 9 for the number of words. Follow that with the gematrical values for each of the forty-three letters in the verse. A long number is produced which is divisible by **19**.

1 7 9 90 200 9   1 30 700 10 50   1 50 70 40 400   70 30 10 5 40   1000 10 200   1 30 40
1000 800 6 2   70 30 10 5 40   6 30 1   1 30 800 1 30 10 50

(**19** x 946852679635263710605633705300158449478947905270021 1053
0529615947923191058 58315857950)

Fact 53. Adding up the number of words in the verse (9), the number of letters (43) and the gematrical value of the verse (6009) gives us a multiple of 19.

$$9 + 43 + 6009 = 6061$$
(**19** x 319)

Fact 54. Verses 6 and 7 are different from the rest of the other verses in the chapter in that they are a single logical sentence. The other verses are self-contained sentences. Let us consider the parameters of these verses jointly. Concatenate the number of letters in verses 6 and 7. You get:

18 43
(**19** x 97)

Fact 55. Arguably, the previous fact could represent any two verses with 18 and 43 letters. How do we know it's specifically Sura 1, Verses 6 and 7? Let us take the sura number (1) followed by the respective verse numbers and number of letters in the verse, i.e., "6 (verse number) 18 (count of letters)" and "7 (verse number) 43 (count of letters)".

1, 6 18, 7 43
(**19** x 85197)

Fact 56. Verse 6 (with 18 letters) and verse 7 (with 43 letters) are the last two verses of Sura 1. Sura 1 has 7 verses and 139 letters in total. If for Sura 1 we include verse and letter parameters at both the aggregate (sura) and individual (verse) levels, we get the following number.

1 7 139, 6 18, 7 43
(**19** x 902085197)

Fact 57. What if we wanted to look at not only the counts of letters in these two verses, but also the gematrical values of the verses? Modifying Fact 54 where we see "18 43" is a 19-multiple, let us add the corresponding gematrical values (i.e., 1072 and 6009).

<div align="center">

18 1072, 43 6009

(**19** x 9530128211)

</div>

Fact 58. Finally, to once more ensure we are referring to Sura 1, we add the aggregate sura parameters. Earlier, we used "1 (sura number) 7 (number of verses) 139 (number of letters)" to represent the sura. Since we included gematrical values in the previous fact, let us also add "10143" (gematrical value of the whole sura) in the sura representation. This gives us a 22-digit number that is a 19-multiple. Note: since we already know that the aggregate sura representation "1 7 139 10143" is a 19-multiple (see Fact 5), God provides us with a stronger proof for this fact in that it is a multiple of 19 twice over.

<div align="center">

1 7 139 10143, 18 1072, 43 6009

(**19** x **19** x 4747673526817375169)

</div>

Alternative Linguistic Discussion

Some Arabic words can be read separately or as a single word. We have one such example in Sura 1 verse 7. The word "WALA" in "WALADDAALLEEN" (WLAALḌALYN in the transliteration for gematrical values) can be viewed either as a separate word or as part of the last word as a modifier of negation. God takes that argument into account and allows us to see proofs with WLAALḌALYN as a single word. Note: for a discussion of facts that consider "WALADDAALLEEN" as two words, please see the proofs starting at Fact 13.

The following section deals with it as a single word, thus making the words in Al-Fātehah 28.

Fact 59. If we take the chapter number (1) and concatenate the number of words in the chapter (28) followed by the number of letters in the chapter (139), we get: 1 28 139. Let us repeat this process for each verse (i.e., verse number, number of words, number of letters). Thus, for example, verse 1 which has 4 words and 19 letters is represented by "1 4 19". This process gives us a 34-digit number, which is a multiple of 19.

<div align="center">

1 28 139   1 4 19   2 4 17   3 2 12   4 3 11   5 4 19   6 3 18   7 8 43

(**19** x 67441653644301690753239050694097)

</div>

Fact 60. Start with Fact 25, which concatenates the sura number (1), the gematrical value of the sura title (525) and the number of verses (7). Next, concatenate the number of words (28) and letters (139) in the chapter. This gives us the following multiple of 19. We know from Fact 25 that 1 525 7 is divisible by 19, so it follows that "28, 139" is divisible by itself.

1 525 7 28 139

(**19** x 80301481)

Fact 61. Take Fact 60 and once again replace "525" (the aggregate gematrical value of the title "Al-Fãtehah") with the gematrical value of each letter in "Al-Fãtehah". Once again, we end up with a multiple of 19.

1 1 30 80 1 400 8 5 7 28 139

(**19** x 5951586320301481)

Fact 62. The facts presented so far looked at the concatenation of different parameters of Sura 1. Other facts, like the current one, sum parameters of the chapter, producing multiples of 19.

So, if we add the number of verses (7) + the number of words (28) + the number of letters (139) + the gematrical value of all the letters in the chapter (10143) we get 10317 (**19** x 543).

Fact 63. This fact is a variant of Fact 52 (note, in this sub-section we're dealing with proofs that relate to the viewpoint that *WLAALḌALYN* is a single word, i.e., that this verse has 8 words, not 9). When we put each of the gematrical values for these 43 letters in a line with 1:7 (verse number) and 8 for the number of words in the phrase a long number is produced which is divisible by 19.

90 200 9 1 30 700 10 50 1 50 70 40 400 70 30 10 5 40 1000 10 200 1 30 40 1000
800 6 2 70 30 10 5 40 6 30 1 1 30 800 1 30 10 50   1 7 8

(**19** x 4747416477368973763528442142263712636842642112126368463
19089632133717374372263226371062)

Fact 64. If you take the basic parameters for verse 7 in a line, we get: 7 (verse number) 8 (number of words) 43 (number of letters) 6009 (gematrical value). This gives us a 19 multiple.

7 8 43 6009

(**19** x 4128211)

Coincidence or Planned Design?

The combination of facts about the opening chapter of the Quran make it clear that its design is not just coincidence. For instance, we notice in over a dozen facts a recurring pattern of the sura number (1) and the number of each of the verses (1, 2, 3, 4, 5, 6, 7). A simplified version of the pattern is: $n = 1 \; 1 * 2 * 3 * 4 * 5 * 6 * 7 *$

Here, "*" is a placeholder for verse-level parameters, like the count of letters in each verse. (These parameter numbers are always positive integers.) The resultant number "n" is a multiple of 19.

You'll see this pattern if you look at Fact 1 ($1 \; 1 \; 2 \; 3 \; 4 \; 5 \; 6 \; 7$; in this case, the * symbol represents an empty string) or Fact 4 ($1 \; 1$ 19,786 2 17,581 ... 7 43,6009; where the * represents the number of letters in the verse followed by the gematrical value of that verse).

There are only two possible explanations for over a dozen numbers following this structure. One explanation is that "all this is coincidence and given a sufficiently large sample of books you could get instances of facts whose probability of occurrence is one in a million". The other explanation, to borrow from Abdullah Arik's "Beyond Probability", is that the Al-Fãtehah has been deliberately structured to result in this remarkable mathematical system. Let us try to figure out which explanation makes more sense using some simple probability calculations.

Suppose Fact 1 and Fact 4 (the first two occurrences of this pattern) occurred by random chance. How do we calculate the probability of this occurring? To illustrate this, we'll further simplify a few things. Let us assume that the * parameters are single-digit numbers (1-9). In that case, the resulting number "n" will have 15 digits and look like: $1 \; 1 * 2 * 3 * 4 * 5 * 6 * 7 *$. Our next task is to calculate the probability that a randomly chosen 15-digit number will satisfy the specified pattern and be a 19 multiple.

To calculate this probability empirically, we wrote a computer program that identified all 15-digit numbers satisfying the following sample conditions:
1. The first number is 1 (for the sura number)
2. The second number is 1 (first verse)
3. The fourth number is 2
4. The sixth number is 3
5. The eighth number is 4
6. The tenth number is 5
7. The twelfth number is 6
8. The fourteenth number is 7
9. The entire number is a multiple of 19

Since we knew the first two digits had to be "1 1" (see conditions numbered 1 and 2 in the list above), we told the computer to only consider numbers between 111,111,111,111,111 and 119,999,999,999,999 so it could complete the task faster. (If we consider all 15-digit numbers from 111,111,111,111,111 to 999,999,999,999,999 we get an even smaller probability, but that only strengthens the conclusion.)

The computer found 251,735 such numbers out of a population of 8,888,888,888,888 possible numbers (i.e., numbers that lie between 111,111,111,111,111 and 119,999,999,999,999). Therefore, the chance of a number at random and by pure coincidence satisfying the 9 listed conditions is 251,735 ÷ 8,888,888,888,888 or approximately 1 in 35 million! This is similar to the odds of tossing a coin 25 times and getting heads *every single time*.

Based on this information, we can say that two such facts about Sura 1 coincidentally occurring is like tossing a coin 50 times and getting heads every single time, i.e., 1 in (35 million)^2 or approximately 1 in a quadrillion. The more such facts that appear in a book or chapter, the probability of them occurring purely by chance becomes even more minuscule. This probability quickly approaches zero as we take additional mathematical facts into consideration.

Note: a more general version of the pattern described, which considers aggregate parameters of Sura 1, is:

$$n = 1 \quad \# \quad 1 * 2 * 3 * 4 * 5 * 6 * 7 *$$

Here, "#" represents sura-level aggregate parameters, e.g., the number of verses in Sura 1. An example of this pattern is seen in Fact 8 which starts with the sura number (1) followed by the number of verses (7) in the sura, followed by each verse number and the corresponding gematrical value of each letter within the verse. The additional complexity implies an even tinier likelihood that a number will satisfy our sample conditions by coincidence.

A reasonable person may therefore conclude that the structure of Sura 1, The Key, is by the design of an Almighty Author, especially given that the mathematical structure encompasses the entire book, not just the first chapter.

Conclusion

The mathematical facts in this book demonstrate that the first chapter of the Quran is encoded with an intricate pattern based on the number 19. The facts encompass every parameter (e.g., verses, words, letters, gematrical values of each letter) of The Key, Al-Fãtehah. God willing there will be more mathematical facts discovered in the future, as researchers continue to examine this short but critical chapter.

In isolation, a few facts may be considered unusual but coincidental. It can be proven mathematically that the entire set of facts cannot just be coincidence. Further, if it were coincidental, the reader should be able to replicate these results with the first chapter of any book.

Mathematical Challenge

[Quran 2:23] If you have any doubt regarding what we revealed to our servant, then produce one sura like these, and call upon your own witnesses against **GOD**, if you are truthful.

[Quran 10:38] If they say, "He fabricated it," say, "Then produce one sura like these, and invite whomever you wish, other than **GOD**, if you are truthful."

God encourages us to study the Quran carefully (4:82, 9:122, 73:4, etc.). The facts you have witnessed in this book are a small part of the Quran's profound mathematical miracle.

As expected, the mathematical miracle of the Quran extends far beyond Chapter 1. A summary is in Appendix 1 of *Quran, The Final Testament*, translated by Rashad Khalifa, Ph.D. (http://www.masjidtucson.org/quran/). As Rashad Khalifa explains, only God could have structured a book with (1) a mathematical literary composition involving each Arabic letter, and (2) a mathematical structure involving the numbers of suras and verses. Because of this comprehensive mathematical coding, the slightest distortion of the Quran's text or physical arrangement is immediately exposed.

Today, you can verify the identity of a document's author using a digital signature. The Quran's "digital signature" uses the parameters of the chapter itself (e.g., verses, words, letters) to prove the divine authorship and preservation of the Quran. If a verse or even a letter were added or removed, the digital signature would no longer be valid.

The Quran is a book for all times and all people. And its study is a lifetime endeavor that provides wisdom to those who pursue it sincerely, and happiness to those who follow it. By presenting these facts we hope that you will be encouraged to be among those so blessed.

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