

Teaching Mathematics through Qur'anic Numeracy: Representations of the Numbers 7 and 19 in the Qur'an

Haerul Syam¹, Fatqurhohman^{2*}

¹Universitas Muhammadiyah Makassar, ²Universitas Muhammadiyah Jember
frohman86@unmuhjember.ac.id

Abstract. Mathematics in the Qur'an shows the uniqueness of His design and the text's perfection, arranged harmoniously and integrating spiritual, numerical, and scientific concepts. This study aims to represent the numbers 7 and 19 in the codification of the Qur'an. This study uses a literature study. The research data sources include journals, printed and digital books, and other valid sources. The data collected include surahs, verses of the Qur'an, and its numerical structure involving the numbers 7 and 19. Data collection used the Maudhu'i method. The results of the study show that the existence of the numbers 7 and 19 represents the numerical structure and natural phenomena, including the 7 layers of the sky (An-Naba: 12; Al-Hijr: 16), the 7 land masses and the seas (Ath-Thalaq: 12; Luqman: 27), 7 (verses) read repeatedly (Al-Hijr:87), 7 human body parts (Al-Alaq:19), 7 human periods (Al-Fath:26), 7 layers of hell (Al-Hijr:44), 19 guardian angels of hell (Al-Muddassir:30), surah Al-'Alaq (19 verses, words) and (76=19×4) letters, surah Al-Qalam (38=19×2) words, surah Al- Muzammil (57=19×3), Al-Quran letter (114=19×6), 19 letters (basmalah). This finding shows the balance of word counts, muqatta'at letters, days of creation, multiple patterns, and regular numerical codes in the Qur'an. Thus, the numbers 7 and 19 reflect mathematical concepts in the Qur'an, manifested through symbols, the meanings of lafadz, and the codification of letters, words, verses, and surahs, along with their numerical values.

Keyword: Mathematics, Qur'an, Numbers 7 and 19, Codification, Muqatta'at

INTRODUCTION

The Qur'an is the holy book of Muslims as a spiritual, moral, and legal guide for human life (Tafiati, 2023), are hereafter in nature and worldly muamalah (relationship) problems (Pa'ba, 2020), which is always maintained and its authenticity is guaranteed or its truth is proven, as in Surah Al-Hijr: 9 (Athar, 2019). Therefore, Allah commands humans, as creatures endowed with intelligence, to learn to understand his creation (Khatimah, 2020; Tafiati, 2023).

Learning the Qur'an means carrying out activities to study, research, study/read, think (Muhamad Rizal, 2023; Zulkarnain, 2022). The verses of the Qur'an are related to exact scientific disciplines (Athar, 2019; Tajuddin et al., 2021), like a mathematical concept (Noperta, 2023), which involves mathematical principles with various mathematical approaches (Narunita & Kusuma,

2023), understanding of the numerical patterns, balance and harmony that have been represented in the contents of the verses of the Qur'an (Hasan et al., 2022).

The mathematical system in the Qur'an was first discovered by a Muslim scientist of Egyptian descent named Dr. Rashad Khalifa who revealed the initials of the letters of the Qur'an (*Alif, Lam, Mim*) which contain the meaning "*only Allah knows the meaning*" (Ariyadi, 2023; Hakim, 2023; Tafiati, 2023). This finding has given rise to various initials of letters in the Qur'an with a common denominator which is the basis for the discovery of numbers in various chapters of the Qur'an.

Numbers are a mathematical concept used for counting and measuring (Yolanda Eka Putri & Wahyuni, 2023), includes cardinal and ordinal numbers, natural, prime, real, complex, composite, whole, rational and irrational numbers (Fatqurhohman, 2021), which has a value of quantity or sequence of something or part of a whole in the form of a symbol or emblem (number) (Maulana, 2020). The numbers contained in the Qur'an have become a unique and interesting phenomenon (Ariyadi, 2023; Hayati & Munir, 2019; Hebriyansyah Zaini et al., 2023). One of these unique features is prime numbers (Loconsole & Regolin, 2022), such as the numbers that make up the letters and verses of the Qur'an (Ariyadi, 2023) and the basics of science (Ahmad & Abdullah, 2021). Therefore, the scientist's view of prime numbers is a universal language that can be understood by all creatures (species) (Tafiati, 2023), and has proven the perfection of the Qur'an (Maulana, 2020; Rasyid & Reskiani, 2022).

Various research studies that have been conducted previously on the many numbers in the verses of the Qur'an provide evidence of the existence of His miracles, including in the mention of the words, "*world*", "*afterlife*", "*angels*", "*devils*", "*life or death*", "*sky*", "*sun*", "*moon*" and "*sea*" (Desi Lestari et al., 2022; Rasyid & Reskiani, 2022), mention of numbers in certain number concepts and mathematical logic (Adabi, 2019; Nihayati et al., 2022; Yolanda Eka Putri & Wahyuni, 2023). The use of these numbers as a form of mathematical representation of certain regularities or patterns in the verses of the Qur'an (Ariyadi, 2023), such as the number 7 in surah Al-Mulk: 3, surah Al-Baqarah: 29, the number 19 in surah Al-Muddatsir: 30, the letter basmalah, surah Al-Fatihah, and surah Thaha (Adabi, 2019).

Based on the description presented, the Qur'an contains various numbers and certain special figures. Therefore, the researcher will study and present prime numbers in Qur'anic verses, focusing on the structure of the numbers 7 and 19 and their special qualities. This research aims to provide insight into the relationship between mathematics and the Qur'an, as well as the greatness and perfection of Allah's creation through the lens of science and mathematics.

METHOD

This research is qualitative and uses a library research method. Qualitative research aims to understand a phenomenon holistically through words and language within a specific context and natural social phenomenon (Moleong, 2021). The literature study method is a series of research activities or theoretical studies, references and other scientific literature obtained digitally or in print according to the social situation being studied (Yaniawati, 2020).

The research data was obtained from literature data from digital and printed sources, such as journals, books, and other valid supporting sources. The data collected in this study were (1) the names of surahs and verses of the Qur'an that contain the numbers 7 and 19, (2) the numerical structure of the surahs or verses of the Qur'an that are related to the numbers 7 and 19. The data collection method chosen used the *maudhu'i* method. The *maudhu'i* method is a method carried out by collecting and arranging verses of the Qur'an which have the same direction and theme (Tohis & Malula, 2023). Therefore, the researcher classifies the surah and verses of the Qur'an containing the numbers 7 and 19, then further analyzed to obtain valid inferences. So that this study can provide

an overview of the problems studied regarding the mathematical representation of the numbers 7 and 19 in Qur'an.

FINDINGS

1. Mathematical Representation of Composite Numbers

Prime numbers and composite numbers constitute the fundamental basis for the The mathematical analysis conducted in this study began by identifying the representation of composite numbers as the basis for examining numerical structures in the Qur'an. Composite numbers were represented according to their prime factorization to provide a consistent arithmetic framework for subsequent analyses. The identified representations include both even and odd composite numbers with different combinations of prime factors. Table 1 presents examples of composite numbers and their corresponding prime factorization.

Table 1. Composite Number Representation

Composite Numbers	Prime Numbers	Representation of structure
4	2	1 x 2 x 2
6	2, 3	1 x 2 x 3
8	2	1 x 2 x 4
9	3	1 x 3 x 3
30	2, 3, 5	1 x 2 x 3 x 5
85	5, 17	5 x 17
etc	etc	etc

Table 1 presents several representative composite numbers together with their corresponding prime factorizations. The represented numbers include 4, 6, 8, 9, 30, and 85, each expressed as the product of its constituent prime factors. The factorizations show that each composite number has a unique prime factorization, although the number and combination of prime factors vary among the represented values. The identified factorizations provide a numerical representation of composite numbers that underpins the mathematical descriptions presented in this study.

2. Structural Representation of the Number Seven in the Qur'an

The analysis identified the number seven in several structural components of the Qur'an. These occurrences were found in Qur'anic verses, thematic descriptions, and prophetic traditions. The data were then organized by verse location, thematic context, and mathematical representation. The study identified verses containing the number seven across several surahs of the Qur'an. These verses describe themes such as the creation of the heavens and the earth, human life, and eschatological events. The distribution of these verses is presented in Table 2.

Table 2. Mention of the Number 7 in the Surah of the Qur'an

Name of Surah	No. Surah	Verses	Name of Surah	No. Surah	Verses
Al-Baqarah	2	9, 196, 261	Fussilat	41	12
Al-A'raf	7	54	At-Talaq	5	12
Yusuf	12	43, 46-48	Al-Mulk	67	3
Al-Hijr	5	44, 87	Al-Haqqah	69	7, 32
Al-Isra	17	44	An-Nuh	71	15
Al-Kahf	18	22	An-Naba'	78	12
Al-Mu'min	23	7	Al-Alaq	96	9
Luqman	31	27			

Table 2 shows that references to the number seven are distributed across several surahs and verses of the Qur'an. The identified occurrences are not confined to a single chapter but appear in different surahs covering various thematic contexts. Each occurrence was documented according

to its corresponding surah and verse number. In addition to the Qur'anic verses, references to the number seven were also identified in several authentic prophetic traditions, indicating that this numerical expression appears in both the Qur'an and Hadith. Collectively, the identified references constitute the textual dataset used to examine the mathematical representation of the number seven in this study. These narrations include references related to religious guidance, rewards, prohibitions, and acts of worship involving the number seven. The identified hadith are summarized in Table 3.

Table 3. Mention of the Number Seven in Hadith

Name Of Hadith	Representation in sentence mention
HR. Baihaqi	<i>"seventy good deeds"</i>
HR. Al-Bukhari dan Muslim	<i>"Stay away from 7 things that are destructive".</i> <i>"Seven categories", "burden as heavy as seven earths", "7 dates",</i> <i>"70 autumns", "every 7 days", "7 bones".</i>
HR al-Baihaqi dan At-Thabrani	<i>"I was given as-Sab'u, al-Mi'in, al-Matsani, al-Mufashshal".</i>

Table 3 presents several authentic prophetic traditions containing numerical expressions associated with the number seven. The identified narrations include references to seven destructive sins, seven categories of people, seven dates, seven body parts used in prostration, and other numerical expressions recorded in authentic hadith collections. These narrations complement the Qur'anic references presented in Table 2 by showing that the occurrence of the number seven is identified in both the Qur'an and Hadith. Collectively, the identified verses and hadith constitute the textual data used to examine the mathematical representation of the number seven in this study.

The numerical data derived from the identified Qur'anic verses and prophetic traditions were subsequently organized according to their structural characteristics. The analyzed quantities include the number of surahs, cumulative verse totals, lexical frequencies, and thematic groupings, which are presented as mathematical representations in Table 4. Each numerical quantity is expressed according to its corresponding arithmetic factorization, providing a structured description of the numerical relationships identified in the analyzed data. These representations summarize the structural findings related to the occurrence of the number seven without extending to their mathematical or theological interpretation, which is discussed in the subsequent section.

Table 4. Mathematical Representation of the Number Seven in the Qur'an

Numbers	Representation of number structures	Representations of fact or information
77	$77 = 7 \times 11$	The total number of Surah Al-Baqarah to An-Naba' is 77 surahs
5649	$5649 = 7 \times 807$	Number of verses 29 (Al-Baqarah) until verse 12 (An-Naba') is 5649 verses
5705	$5705 = 7 \times 815$	The number of verses from the beginning (Al-Baqarah) to the last verse (An-Naba') is 5705 verses
35	$35 = 7 \times 5$	The number of first verses containing the number 7 is 35 verses
5684	$5684 = 7 \times 812$	The number before the last verse is 5684 verses
5712	$5712 = 7 \times 816$	The number of verses of the Qur'an up to the last verse of Surah An-Naba' is 5712 verses
112	$112 = 7 \times 16$	Surah of the Qur'an that mentions " <i>Allah</i> " is 112 surah
6623	$6623 = 7 \times 7 \times 127$	Verse of the Qur'an that mentions " <i>Allah</i> " is 6623 verses
70	$70 = 7 \times 10$	The sentence "qiamat" in the Qur'an is 70 times
77	$77 = 7 \times 11$	The sentence "jahannam" is 77 times
7	$7 = 7 \times 1$	The tasbih sentence " <i>La-Ilha-Ha-Il-la-Allah</i> " is listed in 7 surahs namely Al-Isra', Al-Hadid, Al-Hasyr, As-Saff, Al-Jumu'ah, At-Taghabun, and Al-A' la
7	$7 = 7 \times 1$	The creation of the heavens and the earth is stated in 7 surahs, namely Al-A'raf, Yunus, Hud, Al-Furqan, As-Sajadah, Qaf, Al-Hadid
7	$7 = 7 \times 1$	The longest surah in the Qur'an consists of 7 suras, namely Al-Baqarah, Ali Imran, An-Nisa', Al-Ma'idah, Al-An'am, Al-A'raf, Al-Anfal, At-Taubah

Table 4 presents several numerical quantities represented as exact multiples of seven. The identified quantities include the total number of surahs, cumulative verse counts, selected lexical frequencies, and thematic classifications, each expressed according to its corresponding arithmetic factorization. The factorization results show that the analyzed numerical quantities consistently yield exact multiples of seven, despite being derived from different structural components of the Qur'an. These findings demonstrate the recurrence of the number seven across surah organization, verse enumeration, lexical frequency, and thematic grouping, as identified in the analyzed dataset.

3. Letter-Based Representation of the Number Nineteen in the Qur'an

The analysis of the number nineteen began with the distribution of the Qur'an's disjointed letters (*ḥurūf al-muqaṭṭa'āt*). The examined letters include Šhad, Qaf, and the combination Alif-Lam-Mim, which appear as independent letter combinations at the beginning of several surahs. We identified the frequency of each letter and represented it using arithmetic factorization based on the number nineteen. The letter Šhad occurs in three surahs that begin with this letter. Table 5 presents the letter's frequency in each surah and its cumulative total.

Table 5. Frequency of the Letter “Šhad” in Surah Letter

Name of Surah	No. Surah	Many of Šhad
Al-A'raf	7	98
Maryam	19	26
Šhad	38	28
Total		152 = 8 x 19

Table 5 presents the frequency of the letter Šhad in Surah Al-A'raf, Surah Maryam, and Surah Šhad. The table presents the cumulative frequency of the letter across these three surahs, along with its arithmetic representation. The letter Šhad occurs 152 times, corresponding to the factorization $152 = 8 \times 19$. Accordingly, the cumulative frequency is represented as an exact multiple of 19.

The analysis was then extended to the letter Qaf, one of the Qur'anic disjointed letters. Table 6 summarizes the letter's frequency in the selected surahs, along with the corresponding surah numbers and arithmetic representations.

Table 6. Frequency of the Letter “Qaf” in Selected Surahs

Name of Surah	No. Surah	Many of Qaf	Amount	Structure
Asy-Syura	42	53	95	(3 x 19)
Qaf	50	45	95	(3 x 19)
Total	92	98	190	(10 x 19)

Table 6 presents the frequency of the letter Qaf in Surah Ash-Shūrā and Surah Qaf. The table includes the surah numbers, the frequency of the letter Qaf in each surah, the cumulative frequencies, and their corresponding arithmetic representations. The analyzed data show that the sum of the surah number and the frequency of the letter Qaf equals 95 ($42 + 53 = 95 = 5 \times 19$) for Surah Ash-Shūrā and 95 ($50 + 45 = 95 = 5 \times 19$) for Surah Qaf. In addition, the combined total of the surah numbers and the occurrences of the letter Qaf in both surahs is 190, corresponding to the factorization $190 = 10 \times 19$. These numerical relationships represent exact multiples of 19 derived from the analyzed data.

The analysis was subsequently extended to the disjointed letters Alif, Lam, and Mim, which appear at the beginning of eight Qur'anic surahs. Table 7 presents the identified frequencies of each letter and their cumulative totals.

Table 7. Frequency of the Letters Alif, Lam, and Mim in Selected Surahs

Name of Surah	Many of Alif	Many of Lam	Many of Mim	Amount
Al-Baqarah	4592	3204	2175	9971
Ali Imran	2578	1885	1251	5714
Al-A'raf	2572	1523	1165	5260
Ar-Ra'd	625	479	260	1364
Al-Ankabut	784	554	347	1685
Ar-Rum	545	396	318	1259
Luqman	348	298	177	823
As-Sajadah	268	154	178	600
Total	12312	8493	5871	26676

Table 7 summarizes the frequencies of the disjointed letters Alif, Lam, and Mim in Surah Al-Baqarah, Ali Imran, Al-A'raf, Ar-Ra'd, Al-Ankabut, Ar-Rum, Luqman, and As-Sajadah. The table presents each letter's frequency in the analyzed surahs, along with the cumulative frequencies and the overall total. The data show variation in individual letter frequencies across the surahs, while the cumulative frequencies provide the numerical basis for the subsequent mathematical representation.

The cumulative frequencies of the letters Alif, Lam, and Mim were further expressed according to their corresponding arithmetic factorizations. Table 8 presents the resulting numerical representations, summarizing the factorization of the individual letter frequencies and their combined total.

Table 8. Representations of Number 19 (Alif, Lam, Mim) in Surah

Numbers	Representation of number structures	Representations of fact or informations
26676	$26676 = 1404 \times 19$	Number of letters " <i>Alif</i> ", " <i>Lam</i> ", " <i>Mim</i> " in all surahs: Al-Baqarah, Ali Imran, Al-A'raf, Ar-Ra'd, Al-Ankabut, Ar-Rum, Luqman, As-Sajadah
12312	$12312 = 648 \times 19$	Number of letters " <i>Alif</i> " in all surahs: Al-Baqarah, Ali Imran, Al-A'raf, Ar-Ra'd, Al-Ankabut, Ar-Rum, Luqman, As-Sajadah
8493	$8493 = 447 \times 19$	Number of letters " <i>Lam</i> " in all surahs: Al-Baqarah, Ali Imran, Al-A'raf, Ar-Ra'd, Al-Ankabut, Ar-Rum, Luqman, As-Sajadah
5871	$5871 = 309 \times 19$	Number of letters " <i>Mim</i> " in all surahs: Al-Baqarah, Ali Imran, Al-A'raf, Ar-Ra'd, Al-Ankabut, Ar-Rum, Luqman, As-Sajadah

Table 8 presents the arithmetic representations derived from the cumulative frequencies of the letters Alif, Lam, and Mim. The represented quantities include the total frequency of all three letters and the individual frequencies of each letter, each expressed using its corresponding arithmetic factorization. The representations show that, based on the analyzed data, both the cumulative total and the individual letter frequencies are exact multiples of 19. The analysis was subsequently extended to the linguistic structure of the phrase Bismillāhir-Raḥmānir-Raḥīm (Basmalah). The phrase consists of nineteen Hijaiyah letters, namely Ba, Sin, Mim, Alif, Lam, Lam, Ha, Alif, Lam, Ra, Ha, Mim, Nun, Alif, Lam, Ra, Ha, Ya, and Mim. Linguistically, the Basmalah consists of four words: Bism (3 letters), Allah (4 letters), Al-Raḥmān (6 letters), and Al-Raḥīm (6 letters), for a total of 19 letters ($3 + 4 + 6 + 6 = 19$).

Overall, the letter-based analysis identified mathematical representations derived from the frequencies of the Qur'an's disjointed letters (ḥurūf al-muqaṭṭa'āt). The identified representations include the frequencies of the individual letters Ṣhad, Qaf, Alif, Lam, and Mim, their cumulative totals, and the corresponding arithmetic factorizations. The analyzed numerical quantities consistently produce exact multiples of 19 across the examined letter groups, indicating that this numerical relationship holds for both individual letter frequencies and their cumulative representations in the analyzed dataset.

4. Word-Based Representation of the Number Nineteen in the Qur'an

The analysis was extended to the word-based representation of the number nineteen through the linguistic structure of the Basmalah (*Bismillahir-Raḥmānir-Raḥīm*). The analysis includes the constituent Hijaiyah letters, the numerical value assigned to each letter, the frequency of each word in the Qur'an, and the corresponding arithmetic representations derived from these values. The Basmalah consists of four words, Bism, Allah, Al-Raḥmān, and Al-Raḥīm, totaling nineteen Hijaiyah letters. Table 9 presents the constituent letters and their corresponding numerical values. The structural composition shows that Bism consists of three letters, Allah of four, and both Al-Raḥmān and Al-Raḥīm of six each, for a total of nineteen letters. These numerical data constitute the word-based structural representation analyzed in this study.

Table 9. Numerical Values of the Hijaiyah Letters in the Basmalah

Letters "Bism"	Numeric	Letters "Allah"	Numeric	Letters "Al-Rahman"	Numeric	Letter "Al-Rahim"	Numeric
Ba'	2	Alif	1	Alif	1	Alif	1
Sin	60	Lam	30	Lam	30	Lam	30
Mim	40	Lam	30	Ra'	200	Ra'	200
		Ha'	5	Hha	8	Hha	8
				Mim	40	Ya'	10
				Nun	50	Mim	40

Table 9 presents the constituent Hijaiyah letters of each word in the Basmalah, along with their corresponding numerical values. The four constituent words contain 3, 4, 6, and 6 letters, respectively, yielding a total of nineteen Hijaiyah letters. This structure provides the numerical characteristics of the Basmalah analyzed in this study.

Table 10 presents the frequencies of the four constituent words of the Basmalah in the Qur'an, along with their corresponding numerical values. The compiled data summarize each word's occurrences and provide the numerical values used for the subsequent arithmetic representation.

Table 10. Frequency and Numerical Values of the Constituent Words of the Basmalah

No	Words	Many of Letters	Many of Mentions	Numeric Value of Letter	Numeric Amount
1	Bism	3	19	2, 60, 40	102
2	Allah	4	2698	1, 30, 30, 5	66
3	Al-Rahman	6	57	1, 30, 200, 8, 40, 50	329
4	Al-Rahim	6	114	1, 30, 200, 8, 10, 40	289
	Total	19	2888		786

Table 10 summarizes the number of Hijaiyah letters in each constituent word of the Basmalah, each word's frequency of occurrence in the Qur'an, and the numerical value assigned to each word. The data present the words Bism, Allah, Al-Raḥmān, and Al-Raḥīm, showing their structural composition, frequency of occurrence, and numerical values. Collectively, these numerical quantities constitute the word-based dataset used to examine the mathematical representation of the number nineteen.

Table 11 presents the arithmetic representations derived from the structural composition of the Basmalah and the frequencies of its constituent words. The represented quantities include the total number of Hijaiyah letters, the frequency of each constituent word, and numerical combinations derived from these quantities, each expressed according to its corresponding arithmetic factorization.

Table 11. Mathematical Representation of the Basmalah Based on the Number Nineteen

Numbers	Representation of number structures	Based on	Representations of fact or informations
1193466	62814×19 $3306 \times 19 \times 19$ $174 \times 19 \times 19 \times 19$	Verses in Qur'an	The reading " <i>Basmalah</i> " is the beginning verse in the Qur'an, contains 19 hijaiyah letters and is composed of 4 words, namely Bism (3 letters), Allah (4 letters), Al-Rahman (6 letters), Al-Rahim (6 letter). So, we get a sequence of numbers: 1193466
19, 2698, 57, 114 152	$19 = 1 \times 19$ $269 = 142 \times 19$ $57 = 3 \times 19$ $114 = 6 \times 19$ $152 = 8 \times 19$	The mention of the words in Qur'an Multiplier value	The word "Bism" is mentioned 19 times, "Allah" is mentioned 2698 times, "Al-Rahman" is mentioned 57 times, "Al-Rahim" is mentioned 114 times.
419786	22094×19	Many words, letters, and numeric values	Multiplier value of the numeric words "Bism" (1), "Allah" (142), "Al-Rahman" (3), "Al-Rahim" (6). so, Addition of the multiplier results from the numeric values of the words that make up "Basmalah" is 152
13243646	697034×19	Numbers and many letters	The number of words that make up "Basmalah" is 4, the number of letters in the word that makes up "Basmalah" is 19, the number of numerical values for the words that make up "Basmalah" is 786. So, the number is: 419786 The word "Bism" has the number (1) and the number of letters (3), the word "Allah" has the number (2) and the number of letters (4), the word "Al-Rahman" has the number (3) and the number of letters (6), the word "Al-Rahim" has the number (4) and the number of letters (6). So, the numbers is: 13243646

Table 11 presents the arithmetic representations derived from the structural composition of the *Basmalah*. The represented quantities include the total number of Hijaiyah letters, the frequencies of the constituent words, their corresponding numerical values, and numerical combinations generated from these quantities. Each numerical quantity is expressed according to its corresponding arithmetic factorization. The representations show that, based on the analyzed data, several numerical quantities associated with the structural composition of the Basmalah can be expressed as exact multiples of 19, including both individual quantities and their derived combinations.

Overall, the word-based analysis identified mathematical representations derived from the linguistic composition of the *Basmalah*. The identified representations include the constituent Hijaiyah letters, the constituent words, their frequencies of occurrence in the Qur'an, the corresponding numerical values, and the arithmetic factorizations derived from these numerical quantities. Collectively, these findings summarize the word-based representation of the number nineteen identified in the analyzed data.

5. Surah-Based Representation of the Number Nineteen in the Qur'an

The final stage of the analysis presents the surah-based representation of the number nineteen derived from the structural arrangement of Qur'anic surahs containing the Basmalah. The analyzed data comprise the sequence of surahs extending from Surah At-Taubah (Surah 9) to Surah An-Naml (Surah 27), together with their corresponding surah numbers and verse totals. This arrangement forms the basis for the numerical representation of nineteen at the surah level. The identified sequence consists of nineteen consecutive surahs beginning with Surah At-Taubah and ending with Surah An-Naml. Table 12 summarizes the names of the analyzed surahs, their corresponding surah numbers, and the total number of verses in each surah. These data provide the structural characteristics used to describe the surah-based representation of the number nineteen identified in the present study.

Table 12. 19 Surahs Containing "Basmalah"

No	Name of Surah	No. Surah	Verses	No	Name of Surah	No. Surah	Verses
1	At-Taubah	9	129	11	Maryam	19	98
2	Yunus	10	109	12	Thaha	20	135
3	Hud	11	123	13	Al-Anbiya'	21	112
4	Yusuf	12	111	14	Al-Hajj	22	78
5	Ar-Ra'd	13	43	15	Al-Mu'minun	23	118
6	Ibrahim	14	52	16	An-Nur	24	64
7	Al-Hijr	15	99	17	Al-Furqan	25	77
8	An-Nahl	16	128	18	Asy-Syu'ara	26	227
9	Al-Isra'	17	111	19	An-Naml	27	93
10	Al-Kahfi	18	110	-	-	-	-
Total		135	1015			207	1002

Table 12 presents the names of the analyzed surahs, their corresponding surah numbers, and the total number of verses contained in each surah. The identified sequence comprises nineteen consecutive surahs extending from Surah At-Taubah (Surah 9) to Surah An-Naml (Surah 27). In addition to the structural characteristics of the surahs, the table includes numerical quantities associated with the analyzed sequence, including the cumulative surah numbers, the verse number containing the *Basmalah* in Surah An-Naml, and the cumulative numerical totals derived from these surahs.

Table 12 also presents the arithmetic representations derived from these numerical quantities. The analyzed data show that the cumulative sum of the surah numbers from 9 to 27 is 342, corresponding to the factorization $342 = 18 \times 19$. Similarly, combining the surah number and the verse number containing the Basmalah in Surah An-Naml ($27 + 30$) yields 57, which factors as 3×19 . In addition, the total number of Hijaiyah letters from the opening *Basmalah* to verse 30 of Surah An-Naml is 342, corresponding to the factorization $342 = 18 \times 19$. These arithmetic representations summarize the surah-based numerical findings associated with the number nineteen identified in the analyzed data.

DISCUSSION

Mathematical Interpretation of the Number Seven

The findings show that the number seven recurs as a mathematical pattern in the Qur'an's structure, across surahs, verses, thematic expressions, and lexical frequencies. Several structural quantities appear as exact multiples of seven through arithmetic factorization, indicating that these numerical relationships are systematically distributed across different textual components rather than appearing in isolation. These findings align with previous studies that identify seven as a dominant numerical pattern in the Qur'an (Hayati & Munir, 2019; Husein et al., 2023).

The number seven recurs in major Qur'anic themes, including the seven heavens, seven earths, the seven oft-repeated verses (*sab'an mina al-mathāni*), and the seven gates of Hell (Hayati & Munir, 2019). Previous studies further explain that these patterns are reflected in the codification of letters, words, verses, surahs, numerical values, and sequential ordering, providing a structured framework for mathematical representation " (Ariyadi, 2023; Hayati & Munir, 2019; Husein et al., 2023; Zaeni, 2021). This interpretation is consistent with the concept of *i'jāz 'adadi*, which considers numerical organization as one aspect of the Qur'an's distinctive characteristics (Hayati & Munir, 2019). Numerical investigations initiated through Rashad Khalifa's analysis of ḥurūf al-muqāṭṭa'āt further show that Qur'anic numerical expressions can be examined quantitatively despite being conveyed linguistically rather than symbolically (Ahmad & Abdullah, 2021; Ahmad et al., 2023; Ariyadi, 2023; Hakim, 2023; Tafiati, 2023).

Mathematically, prime numbers provide the analytical basis for representing these numerical structures because every composite number can be uniquely decomposed into prime factors (Chorlay et al., 2022; Güreffe & Aktaş, 2020). Within this framework, the present study extends previous research by integrating arithmetic factorization with Qur'anic codification to represent the structural relationships of the number seven. Nevertheless, these numerical regularities should be interpreted as descriptive mathematical representations that depend on counting conventions, verse enumeration, and textual classification rather than as conclusive evidence of intentional numerical design (Maulana, 2020; Noperta, 2023; Rasyid & Reskiani, 2022; Wati et al., 2023).

Mathematical Interpretation of the Number Nineteen

The findings indicate that the number nineteen recurs across multiple structural dimensions of the Qur'an, including the frequencies of the disjointed letters (*ḥurūf al-muqatta'āt*), the linguistic composition of the *Basmalah*, and the arrangement of selected surahs. The consistency of these relationships across letters, words, and surah structures suggests an interconnected arithmetic representation rather than isolated numerical observations. In particular, the frequencies of the letters *Ṣhad*, *Qaf*, and *Alif-Lam-Mim*, together with the nineteen-letter composition of the *Basmalah*, can be expressed as exact multiples of nineteen through arithmetic factorization. These findings corroborate previous studies identifying similar numerical patterns in the *Basmalah*, disjointed letters, selected Qur'anic expressions, and the structural organization of surahs (Adabi, 2019; Ariyadi, 2023; Desi Lestari et al., 2022; Labib, 2021).

Previous studies further report recurring representations of the number nineteen in both Qur'anic structure and Islamic tradition. The divine attribute *Wahid* appears nineteen times, and Surah Al-Hadid (57:3) has been interpreted through the symbolic relationship between the first and last single-digit integers, forming the number nineteen (Medika, 2019; Maulana, 2020). Additional arithmetic regularities have been identified in verses concerning the five pillars of Islam, the sequence of obligatory daily prayer units ($24434 = 19 \times 1286$), the total of odd- and even-numbered surahs ($6555 = 19 \times 345$), the 114 surahs of the Qur'an, and the structural characteristics of Surah Al-'Alaq (Rasyid & Reskiani, 2022; Said, 2020).

These findings support the interpretation that the number nineteen represents a recurring mathematical characteristic of the Qur'anic text. However, the observed numerical relationships should be understood as descriptive mathematical representations derived from specific counting conventions, textual classifications, and analytical procedures rather than as conclusive mathematical proof of intentional numerical design (Adabi, 2019; Ariyadi, 2023; Rasyid & Reskiani, 2022).

Integration of the Numerical Patterns of Seven and Nineteen

Collectively, the mathematical representations of the numbers seven and nineteen show that numerical regularities span multiple structural levels of the Qur'an, including letters, words, verses, surahs, and numerical sequences. The consistency of these patterns across different analytical units indicates that the identified relationships form an integrated mathematical structure rather than isolated numerical observations. This finding extends previous studies on *i'jāz 'adadi* by integrating diverse numerical representations into a unified analytical framework based on arithmetic factorization and mathematical representation (Ahmad et al., 2023; Ariyadi, 2023).

From a mathematical perspective, these regularities show that concepts such as prime factorization, multiples, arithmetic sequences, and structural representation provide systematic tools for examining the Qur'an's numerical organization. In particular, the number nineteen functions as a recurring mathematical denominator in several Qur'anic structures, including the frequencies of the initials *Qaf* and *Ṣhad*, the composition of the *Basmalah*, and selected surahs associated with multiples of nineteen (Ahmad et al., 2023; Ariyadi, 2023). Similarly, the number seven consistently appears through structural relationships among surahs, verses, thematic expressions, and lexical frequencies.

This study's principal contribution is integrating structural, letter-based, word-based, and surah-based analyses into a coherent mathematical representation of the Qur'anic text. Rather than interpreting these findings as conclusive evidence of intentional numerical design, the identified relationships should be understood as descriptive mathematical patterns derived from specific counting conventions and analytical procedures. Consequently, this study contributes to interdisciplinary scholarship by providing an empirical framework for investigating Qur'anic numerical structures through mathematical representation while maintaining methodological objectivity.

CONCLUSION

Mathematics in the Qur'an shows the uniqueness in His design and the perfection of the text which is arranged in a harmonious, harmonious, and integrated manner between spiritual, numerical, and scientific concepts. The uniqueness of the numbers 7 and 19 reflects the existence of mathematical concepts in the Qur'an which are manifested through symbols, the meaning of the words, and the codification of letters, words, verses, and surahs, along with their numerical values. The specialty of the number 7 in the Qur'an, including the sky has 7 layers (An-Naba: 12; Al-Hijr: 16), the earth has 7 lands and seas (Ath-Thalaq: 12; Luqman: 27), 7 (verses) are read over and over again (Al-Hijr:87), 7 parts of the human body (Al-Alaq:19), 7 human ages (Al-Fath:26), 7 layers of hell (Al-Hijr:44), 7 regions/territories of the earth. Meanwhile, the special features of the number 19 in the Qur'an include 19 angels guarding hell (Al-Muddassir: 30), Surah Al-'Alaq (19 verses, words) and (76=19×4) letters, Surah Al-Qalam (38 = 19 × 2) words, Surah Al-Muzammil (57 = 19 × 3), Al-Quran letters (114 = 19 × 6), 19 letters (*Basmalah*)

REFERENCES

- Adabi, M. A. (2019). Alquran Dan Rahasia Angka: Kajian Kitab Tafsir Karya Abu Zahra al-Najdi. *Diya Al-Afkar: Jurnal Studi al-Quran Dan al-Hadis*, 7(02). <https://doi.org/10.24235/diyaafkar.v7i02.5806>
- Ahmad, I. N. S., & Abdullah, M. N. (2021). Literature Review of the Numerical in Quran: A General Review Paper. *BITARA International Journal of Civilizational Studies and Human Sciences*, 4(2).
- Ahmad, Negara, H. R. P., & Wijayanti, H. N. (2023). Mengungkap Misteri Angka: Jejak Keterkaitan antara Matematika dan Angka dalam Bahasa Arab. *Jurnal Matluba: Jurnal Pendidikan Bahasa Dan Sastra Arab*, 1(2).
- Ariyadi, S. (2023). Al-Quran Dan Mukjizat Angka. *Al-Fanar: Jurnal Ilmu Al-Qur'an Dan Tafsir*, 6.
- Athar, M. (2019). Bukti Kebenaran Al-Qur'an Dalam Berbagai Bidang Ilmu Pengetahuan. *Ta'dib: Jurnal Pendidikan Islam Dan Isu-Isu ...*, 17(1).
- Chorlay, R., Clark, K. M., & Tzanakis, C. (2022). History of mathematics in mathematics education: Recent developments in the field. *ZDM - Mathematics Education*, 54(7). <https://doi.org/10.1007/s11858-022-01442-7>
- Desi Lestari, Abu Anwar, & Zainur. (2022). Bentuk Tafsir Dalam Kajian Alquran. *AlFurqan: Jurnal Ilmu Al Quran Dan Tafsir*, 5(1). <https://doi.org/10.58518/alfurqon.v5i1.979>
- Fatqurhohman. (2021). Buku Ajar Teori Himpunan. In *Angewandte Chemie International Edition*, 6(11), 951–952.

- Gürefe, N., & Aktaş, G. S. (2020). The concept of prime number and the strategies used in explaining prime numbers. *South African Journal of Education*, 40(3). <https://doi.org/10.15700/saje.v40n3a1741>
- Hakim, A. R. & M. F. (2023). Sejarah Matematika: Perkembangan Bilangan Matematika Empiris. *Prosiding Diskusi Panel Nasional Pendidikan Matematika*, 80.
- Hasan, M. N., Nuroniyah, A., & Anis Silwatud Diyana. (2022). Implementasi Etnomatematika Berbasis Alquran Sebagai Rujukan Pembelajaran Teori Bilangan. *Al Furqan: Jurnal Ilmu Al Quran Dan Tafsir*, 5(1). <https://doi.org/10.58518/alfurqon.v5i1.1787>
- Hayati, R., & Munir, M. M. (2019). Mukjizat Numerik Dalam Al- Qur'an Studi Terhadap Mukjizat Angka 7 Abd Ad-Da'im Al-Kahil. *Jurnal Syabadah*, 7(2).
- Hebriyansyah Zaini, H., Fatqurhohman, F., & Imamah Ah, N. (2023). Konsep Matematika Dalam Al-Qur'an Pada Surat Al-Baqarah. *Laplace: Jurnal Pendidikan Matematika*, 6(2). <https://doi.org/10.31537/laplace.v6i2.1457>
- Husein, M., Rusiana, R., & Arifinsyah, A. (2023). Kodifikasi Teks Al-Qur'an dan Karakteristiknya pada Masa Bani Umayyah. *Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, 17(3). <https://doi.org/10.35931/aq.v17i3.2164>
- Khatimah, H. (2020). Al-Qur'an Sebagai Parameter Kebenaran Ilmu. *At-Turost: Journal of Islamic Studies*, 6(2). <https://doi.org/10.52491/at.v6i2.42>
- Labib, H. A. (2021). Kajian Ayat Fawatih al-Suwar dalam Alquran. *An-Nuur*, 11(2). <https://doi.org/10.58403/annuur.v11i2.54>
- Loconsole, M., & Regolin, L. (2022). Are prime numbers special? Insights from the life sciences. In *Biology Direct* (Vol. 17, Issue 1). <https://doi.org/10.1186/s13062-022-00326-w>
- Maulana, M. (2020). Kemukjizatan Al-Qur'an: Telaah Kemukjizatan Al-Qur'an Melalui Keakuratan Bilangan. *Borneo: Journal of Islamic Studies*, 3(2). <https://doi.org/10.37567/borneo.v3i2.256>
- Medika, G. H. (2019). Pola Matematika pada Surat Al Ikhlas. *FUADUNA: Jurnal Kajian Keagamaan Dan Kemasyarakatan*, 3(2). <https://doi.org/10.30983/fuaduna.v3i2.1603>
- Moleong, J. L. (2021). metodologi penelitian kualitatif J lexy Moleong. *Jurnal Ilmiah*.
- Muhamad Rizal, S. (2023). Menyibak Kemukjizatan Al-Qur'an dari Segi Ilmu Pengetahuan. *AT-TAISIR: Journal of Indonesian Tafsir Studies*, 4(1). <https://doi.org/10.51875/attaisir.v4i1.215>
- Narunita, W. J., & Kusuma, A. B. (2023). Analisis Prinsip Pembelajaran pada Kurikulum Merdeka dan Penerapannya dalam Pembelajaran Matematika. *Postulat: Jurnal Inovasi Pendidikan Matematika*, 4(2). <https://doi.org/10.30587/postulat.v4i2.5730>
- Nihayati, N., Istiani, A., & Efendi, R. (2022). Integrasi Nilai Akhlak Dengan Ayat-Ayat Operasi Bilangan Matematika Dalam Al-Qur'an. *JURNAL E-DuMath*, 8(2). <https://doi.org/10.52657/je.v8i2.1805>
- Noperta, N. (2023). Analisis Konsep Matematika Dalam Al-Quran. *Jurnal Equation: Teori Dan Penelitian Pendidikan Matematika*, 6(1). <https://doi.org/10.29300/equation.v6i1.8433>
- Pa'ba, M. I. (2020). Wawasan Alquran tentang Ukhuwwah. *Rausyan Fikir: Jurnal Studi Ilmu Ushuluddin Dan Filsafat*, 16(2). <https://doi.org/10.24239/rsy.v16i2.612>
- Rasyid, M. D., & Reskiani, A. (2022). Memahami Kemukjizatan Al- Qur'an (Tinjauan Ontologi, Epistemologi dan Aksiologi). *PAPPASANG: Jurnal Studi Alquran-Hadis Dan Pemikiran Islam*, 4(1).

- Said, A. (2020). Kajian Historis Alquran. *Al-Bayan: Jurnal Studi Ilmu Al- Qur'an Dan Tafsir*, 5(1). <https://doi.org/10.15575/al-bayan.v5i1.8887>
- Tafiati, T. (2023). Hakikat Manusia dalam Alquran: Kajian Medan Makna Istilah-istilah Manusia dalam Alquran. *Diwan: Jurnal Bahasa Dan Sastra Arab*, 15(1). <https://doi.org/10.15548/diwan.v15i1.999>
- Tajuddin, M., Mildawati, T., & Masrifah, R. (2021). Ayat-Ayat Sains Dalam Al-Qur'an. *Jurnal Teknologi Pendidikan Madrasah*, 4(2).
- Tohis, R. A., & Malula, M. (2023). Metodologi Tafsir Al-Qur'an. *Al-Mustafid: Journal of Quran and Hadith Studies*, 2(1). <https://doi.org/10.30984/mustafid.v2i1.570>
- Wati, W., Alfiah, A., & Sofian, S. (2023). Kemukjizatan Al-Qur'an dalam Pembuktian Sains Modern. *Journal on Education*, 6(1). <https://doi.org/10.31004/joe.v6i1.623>
- Yaniawati, R. P. (2020). Penelitian Studi Kepustakaan (Library Research). In *Penelitian Kepustakaan (Library Research)*.
- Yolanda Eka Putri, & Wahyuni, I. (2023). Eksplorasi Konsep Bilangan Matematika Dalam Surah Al-Baqarah. *Indonesian Journal of Science, Technology and Humanities*, 1(1). <https://doi.org/10.60076/ijstech.v1i1.13>
- Zaeni, A. (2021). Melacak Sejarah Kodifikasi Al-Quran. *AL-MUFASSIR*, 3(2). <https://doi.org/10.32534/amf.v3i2.2474>
- Zulkarnain, Z. (2022). Pembelajaran Al-Quran Melalui Metode Ummi. *Inteligensia*, 9(2). <https://doi.org/10.54604/itg.v9i2.71>