

## Mathematical Arts of the Quran

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**Abstract:** Science and mathematics serves as an instrument to create technology for nation advancement and also give valuable arts in certain parts. This study has discussed about the greatness of meticulous and miraculous arrangement by Allah SWT from mathematical point of view. The knowledge of the Quran is not limited to the knowledge of one thing only, but encompassing a comprehensive knowledge of 'haq' or truth and is recognized by nature, reason and revelation. The works through this scientific study show that knowledge and miracles are not merely from the interpretation of the verses, but include the arrangement of verses, chapters or known as suras, words and letters that are used in forming the entire contents of the Quran. The knowledge of truth, when fully valued, will bring people to faith and absolute truth.

**Key words:** Mathematics • Quran • Graph • Art

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### INTRODUCTION

God has created mankind as the best creation and best owed them with His infinite and priceless mercy as compared to other creatures. Among His greatest mercy is the power of reason/mind. If the mind is consumed to the highest level, a creative mind could be created and thus, produces benefits to human life in this world. The mind must be led by a proper guidance and the guidance is the Quran, the Holy Book that belongs to the Creator of the world and revealed to the Prophet Muhammad SAW during his prophet hood. It serves as guidance towards a blessed life, to be delivered to all mankind. The Quran is a book which contents were not revealed all at once, but gradually according to the development of the Muslim community when Islam began to spread.

Currently, there have been a lot of efforts from various groups of people who are trying to open the eyes of individuals who degrade the knowledge of the Qur'an. However, according to a scholar in islamization of human sciences, Mohd Yusof [1] efforts made to match the Qur'an with scientific discoveries or Bucaillisme is inaccurate. It is not right if we find what is in the Quran and what is in the science, then we kept saying that it is

provento be true. According to Mohd Yusof [2], it is true that the Quran has explained so, but the Quran is not a book of science, it is greater than that, "huda li muttaqin", which is guiding and giving the beliefs and guidelines only. Therefore, for the details, the Quran has stated 'fas'aluahlazzikri in kuntum la ta'lamun', ask the experts, although they are non-Muslims.

**The Quran in Science Education:** Human needs joint forces of two knowledge; knowledge that connect with the nature (science) and knowledge that connects the development of culture, self-identity and all ethical values towards living in a more directed and healthier life style [3]. All these knowledge already stated in Quran. As human, they must explore and expend the knowledge that connect to the nature as a tool to handle works so that their life easier. Quran works as a guard and ultimate guidance for them so that they will be always in the right path and be responsible to nature, themselves and God on whatever they do in every single aspects of mankind. Science is a knowledge that enable human to understand the nature but not the reality and Quran comes to make science more natural if the knowledge of science with its explanation respect to the Quran and make it accepted by God.

In Malaysia high level education, Tawhidic Science is one of the example which uses Quran among the first factor to built knowledge. *Tawhidic Science* is the approach of the Islamisation of knowledge based on research that relates the integration between science and value-added which implemented by the researcher from faculty of Science and technology, National University of Malaysia. This research uses Quran as a first reference to conduct science and it is led by Khalijah Mohd Salleh who is a Malay female physicist. *Tawhidik Science* reveals the integration between science and religion, more divine oriented and humanisms and the intellectual of nature but firmly hold the Quran and *Sunnah* as the major source of reference [4]. Mohd Yusof [1] has written a book specially catered for this program entitled “*Pengenalan Science Tauhidik*”, used by students in National University of Malaysia and other universities in Malaysia as the reference for *Tawhidic science* program.

The concepts of structure that construct the *Tawhidic science* consists of five entities which is God, human, nature, Quran and *Sunnah*. God acts as The Creator to all creations which can see by eyes or not, this is cannot be explained by normal science which declines the concept of God. Human and nature act as the creature while Quran and *Sunnah* give human a guideline and research boundaries to manage the nature correctly. Thomas Kuhn’s theory told that scientific truth depends on the paradigm that creates it, but paradigm is not absolute medium as it is likely to change when a lot of falsification happened [5]. Thus, the normal science now can possibly turn to not normal and not relevant if someone can find a facts or arguments to deny normal science. Therefore the new normal science will begin and normal science before will be left. One day, who knows that Islamic Science or Science Tawhidic will replace the value-free science normal nowadays. As for *Tawhidic science*, the relations which build the structure are the creator, human and nature which obviously delivered into three relations. First relation is between God and nature, second is relation between God and human and third is relation between human and nature.

**The Quran:** The Quran is a book that contains words of God. It is the primary source of every Muslim’s faith and practice in all times and conditions. Quran deals with all the subjects in human beings like wisdom, doctrine, worship, transactions, law and others. The important thing in the Quran is to guide Muslim in the relationship between God and His creatures.

Muslims believe the Quran to be the book of divine guidance revealed from God to Muhammad through the angel Gabriel over a period of 23 years and view the Quran as God's final revelation to humanity. The Quran consists of 114 chapters of varying lengths, each known as a *sura*. The first *sura* named *Al-Fatiha* which contains seven verses and the final *sura* is *An-Nas* with six verses. Each *sura* consists of several verses, known as *ayat*. The number of verses differs from *sura* to other *sura*. An individual verse may be just a few letters or several lines. The total number of verses in the Quran is 6, 236. All the names chapters or *suras*, number of each *sura* in the Quran, chronological order of the *suras*’ or chapters’ revelation and number of verses in each *sura* are shown in Table 1.

**The Use of Microsoft Excel in the Distribution Analysis of the Quranic Chapters:** The study was carried out through the process of entering information related to the Quran such as the number of verses, the chronology of the chapters or *suras* being revealed and the number of *suras* or chapters. This important and remarkable study was conducted based on a research by Mohd Arip [6], which was related to the distribution graph, capable of sketching the word Allah (الله) and Muhammad (محمد) in Jawi or Arabic form. Based on this idea, the researcher tried to publish a new graph using y-axis which was different from the study by Mohd Arip. From the study, the researcher managed to get a distribution graph where connecting the dots will result in a significant letter, which is also in *Jawi* or Arabic script.

The numbers of chapters and verses contained in each chapter of the Quran have been analyzed by using *Microsoft Excel*. The numbers of chapter or chapter positions starting from the back, the name given by Allah as the one and the only one God to each chapter and the number of verses of each chapter that began with the last chapter, *sura an-Nas* were entered into *Microsoft Excel* cells followed by the second last chapter and continued until *al-Fatihah* chapter which was the 114<sup>th</sup> cell. The method that has been used for this analysis is illustrated as in Figure 2, where A represents the name and the number of the chapter while B represents the number of verses. A and B filled by the list from Table 1.

After entering the number of verses of each chapter, *Microsoft Excel* will automatically build a distribution graph as shown in Figure 3.

Table I: Suras Arrangement in The Quran

No. <i>Sura</i>	Name of <i>Sura</i>	Sura Chronology	No. of <i>suras</i> verses	$\Sigma$
1	Al-Fatihah	5	7	7
2	Al-Baqarah	87	286	293
3	Aali Imran	89	200	493
4	An-Nisa'	92	176	669
5	al-Maa'idah	112	120	789
6	al-An'aam	55	165	954
7	Al-A'raf	39	206	1160
8	Al-Anfal	88	75	1235
9	At-Taubah	113	129	1364
10	Yunus	51	109	1473
11	Hud	52	123	1596
12	Yusuf	53	111	1707
13	Ar-Ra'du	96	43	1750
14	Ibrahim	72	52	1802
15	Al-Hijr	54	99	1901
16	An-Nahl	70	128	2029
17	Al-Isra'	50	111	2140
18	Al-kahfi	69	110	2250
19	Maryam	44	98	2348
20	Taha	45	135	2483
21	Al-Anbiya'	73	112	2595
22	Al-Hajj	103	78	2693
23	Al-Mu'minun	74	118	2791
24	An-Nurr	102	64	2855
25	Al-Furqan	42	77	2932
26	Asy-Syu'araa'	47	227	3159
27	An-Naml	48	93	3252
28	Al-Qasas	49	88	3340
29	Al-Ankabut	85	69	3409
30	Ar-Ruum	84	60	3469
31	Lukman	57	34	3503
32	As-Sajdah	75	30	3533
33	Al-Ahzab	90	73	3606
34	Saba'	58	54	3660
35	Faatir	43	45	3705
36	Yaa Sin	41	83	3788
37	Asaaffaat	56	182	3970
38	Saad	38	88	4058
39	Az-zumar	59	75	4133
40	Ghaafir	60	85	4218
41	Fussilat	61	54	4272
42	Asy-Syu'ura	62	53	4325
43	Az-Zukhruf	63	89	4414
44	Ad-Dukhaan	64	59	4473
45	Al-Jaathiat	65	37	4510
46	Al-Ahqaff	66	35	4545
47	Muhammad	95	38	4583
48	Al-Fath	111	29	4612
49	Al-Hujurat	106	18	4630
50	Qaff	34	45	4675
51	Az-Zaariyaat	67	60	4735
52	At-Tuur	76	49	4784
53	An-Najm	23	62	4846
54	Al-Qamar	37	55	4901
55	Ar-Rahman	97	78	4979
56	Al-waqiah	46	96	5075

Table 1: Continued

57	Al-Hadid	94	29	5104
58	Al-Mujadalah	105	22	5126
59	Al-Hasyr	101	24	5150
60	Al-mumtazah	91	13	5163
61	As-Saff	109	14	5177
62	Al-Jumu'ah	110	11	5188
63	Al-munafiquun	104	11	5199
64	At-Taghaabun	108	18	5217
65	At-Talaaq	99	12	5229
66	At-Tahrim	107	12	5241
67	Al-Mulk	77	30	5271
68	Al-Qalam	2	52	5323
69	Al-Haqqah	78	52	5375
70	Al-Ma'aarij	79	44	5419
71	Nuh	71	28	5447
72	Al-Jinn	40	28	5475
73	Al-Muzammil	3	20	5495
74	Al-Mudaththir	4	56	5551
75	Al-Qiyamah	31	40	5591
76	Al-Insan	98	31	5622
77	Al-Mursalat	33	50	5672
78	An-Naba'	80	40	5712
79	An-Naazi'aat	81	46	5758
80	Abasa	24	42	5800
81	At-takwir	7	29	5829
82	Al-infithar	82	19	5848
83	Al-Mutaffifin	86	36	5884
84	Al-Insyiqaq	83	25	5909
85	Al-Buruj	27	22	5931
86	At-Taariq	36	17	5948
87	Al-A'laa	8	19	5967
88	Al-Ghasyiah	68	26	5993
89	Al-Fajr	10	30	6023
90	Al-Balad	35	20	6043
91	As-Syams	26	15	6058
92	Al-Lail	9	21	6079
93	Ad-Dhuha	11	11	6090
94	Asy-Syarh	12	8	6098
95	At-Tin	28	8	6106
96	Al-A'laq	1	19	6125
97	Al-Qadr	25	5	6130
98	Al-Bayyinah	100	8	6138
99	Az-Zalzalah	93	8	6146
100	Al-A'diyat	14	11	6157
101	Al-Qariah	30	11	6168
102	At-Takathur	16	8	6176
103	Al-Asr	13	3	6179
104	Al-Humazah	32	9	6188
105	Al-Fill	19	5	6193
106	Qurais	29	4	6197
107	Al-Maa'un	17	7	6204
108	Al-Kauthar	15	3	6207
109	Al-Kafirun	18	6	6213
110	An-Nasr	114	3	6216
111	Al-Masad	6	5	6221
112	Al-Ikhlash	22	4	6225
113	Al-Falaq	20	5	6230
114	An-Naas	21	6	6236

	A	B	C	D	E	F	G
1	an-Naas	6					
2	al-Falaq	5					
3	al-Ikhlās	4					
4	al-Masad	5					
5	an-Naṣr	3					
6	al-Kāfirūn	6					
7	al-Kauthar	3					
8	al-Maʿūn	7					
9	Qurais	4					
10	al-Fill	5					
11	al-humaz	9					
12	al-ʿAsr	3					
13	at-Takwīn	8					
14	al-Qariah	11					
15	al-ʿAḍiyat	11					
16	az-Zalzala	8					
17	al-Bayyinah	8					
18	al-Qadr	5					
19	al-ʿAʿlāq	19					
20	at-Tīn	8					
21	as-Syārḥ	8					
22	ad-Duḥā	11					
23	al-Lail	21					
24	as-Syams	15					
25	al-Balad	20					
26	al-Fajr	30					

Fig. 2: The use of *Microsoft Excel* in the distribution analysis of the Quranic chapter

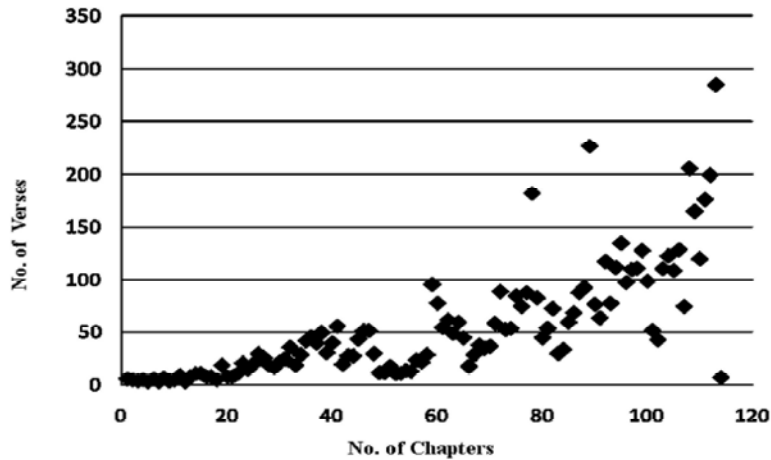


Fig. 3: The distribution graph of the Quranic verses

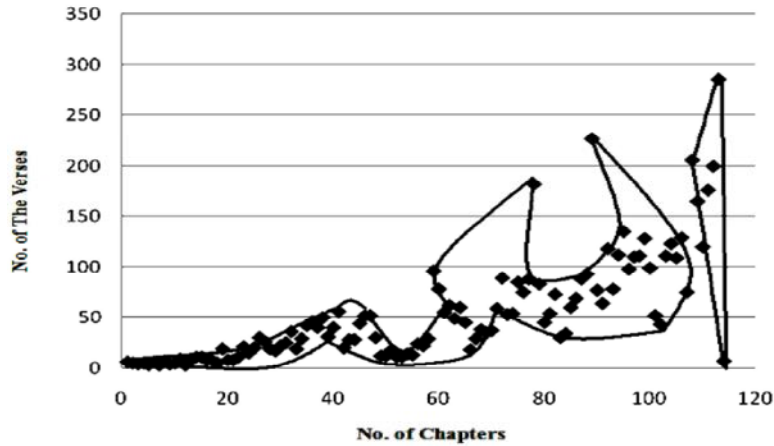


Fig. 4: Islamic calligraphy of the word Allah in Arabic form (الله)

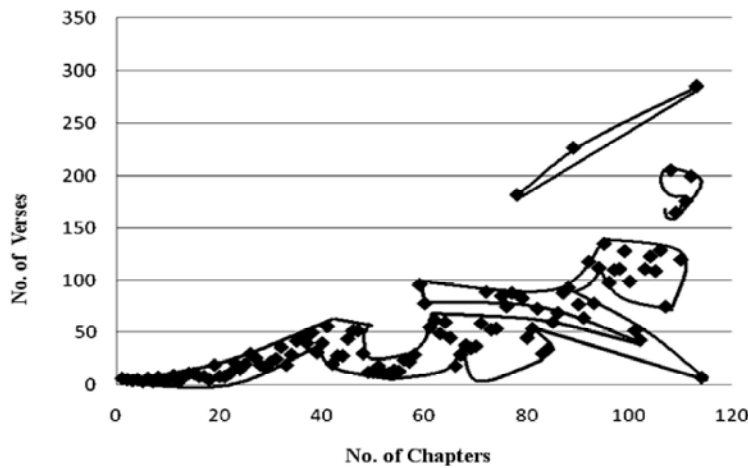


Fig. 5: Islamic calligraphy of the word Muhammad in Arabic form (محمد)

**The Graph Description:** Figure 3 shows a graph of the number of verses and the number of chapters in the Quran. This graph was created from the number of the chapters and the number of the verses entered in *Microsoft Excel* cells. This figure shows that *an-Nas* chapter approached the origin point, while *al-Fatihah* chapter was in the farthest position as it was placed in the 114<sup>th</sup> in Microsoft Excel cell. From the observation of the graph in Figure 3, before connecting the dots, from one point of view, this graph has created the word Allah in Arabic form. Connection points created were as shown in Figure 4.

From one point of view, the word formed after connecting the coordinate points represents the position of the chapters with the number of verses, belongs to the supreme Creator, that is the word of Allah written in Arabic or Jawi (الله). This is also a proof that the holy Quran is not a book of human invention, but it belongs to Allah the Almighty. When the Quran was revealed, which was more than 1400 years ago, a Cartesian graph that has the x-axis and y-axis which has been used nowadays and also used to create distribution graph of the Quranic verses as shown in Figure 3 still did not exist during that time [6].

Cartesian graph is a creative idea to illustrate the relevance of the position between two things. This graph was created by a philosopher named Rene Descartes (1596-1650) and it is called as Cartesian graph in conjunction with his name. Through its use, the connection of the coordinate points has produced a very stunning effect (wikipedia).

Thus, if the coordinate points are joined together, on the other point of view, a word which evokes more amazement for the arrangement of the Quran will appear. The word is the name of our prophet, Prophet Muhammad

in the Arabic or Jawi script (محمد), as illustrated in Figure 5. Without realizing it, two words have been created from joining the coordinate points of the graph of the number of chapters and the number of verses through different angles. These two words are the key words of Islam, which is *Shahada*.

**Distribution Graph of the Number of Chapters and the Chronology of the Quranic Revelation:** In this part, based on repeated observation, the researchers managed to find another word in Jawi script through graph with different y-axis used to create the word Allah and Muhammad in the Jawi script. The x-axis of the graph studied by Mohd Arip represents the chapter numbers and it is similar for the x-axis made by the researchers. Meanwhile, the y-axis of the graph represents the numbers of verses for the study by Mohd Arip, but the y-axis used by the researchers represents the chronological order of the chapters' revelation. Figure 6 shows the graph of the number of chapters and the chronological order of the chapters' revelation. The graph was created from the number of chapters and the chronological order of the chapters' revelation entered into *Microsoft Excel* cells. From the observation of the graph in Figure 6, before connecting the dots, from one angle, this graph has created a word in Arabic script. Connection points created were as shown in Figure 7.

The word created from this angle is still unclear, but when the graph of connection points that has been made as shown in Figure 7 was rotated 900 anti-clockwise, or 2700 clockwise, then the word will be more clearly as it will be in a right position. When the 900 anti-clockwise rotations were made, Figure 7 that show the word formed will be easier to understand as in Figure 8.

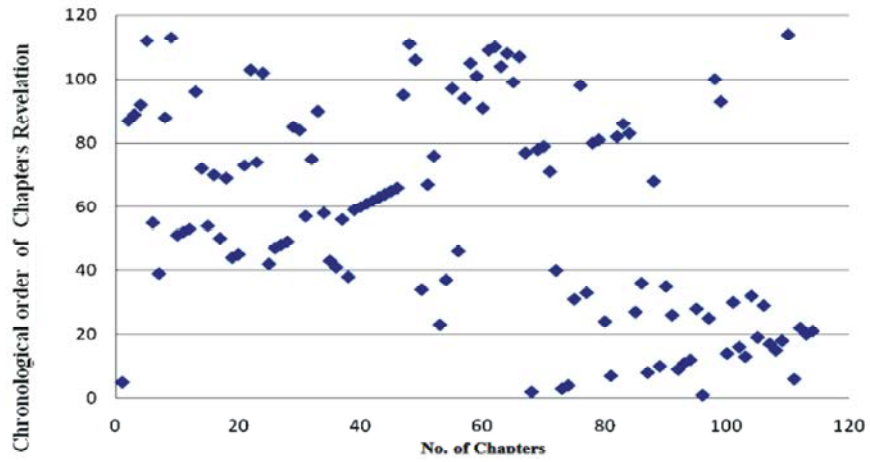


Fig. 6: The distribution graph of Quranic revelation

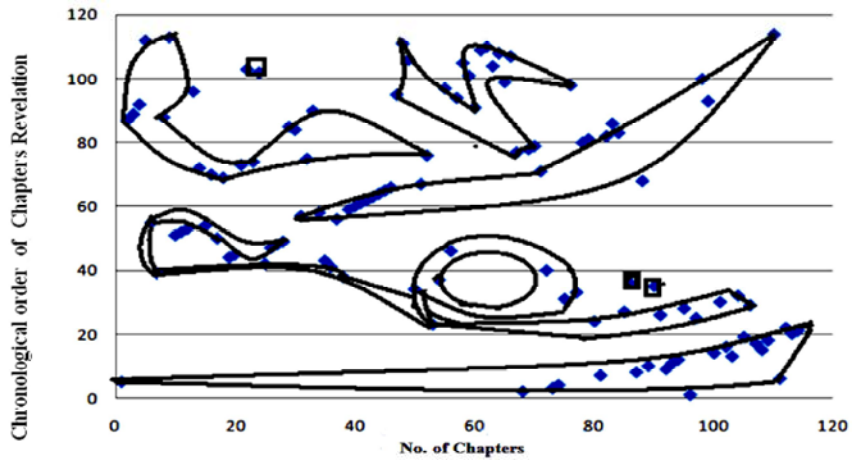


Fig. 7: Islamic calligraphy of the word Quran (in Arabic form)

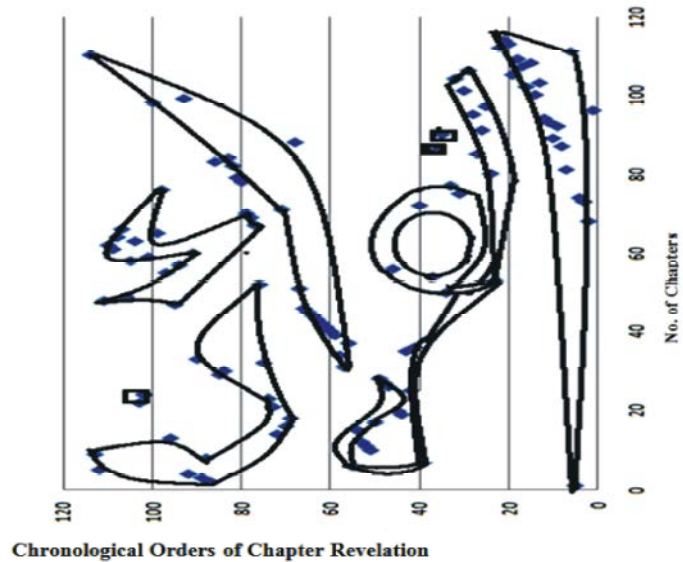


Fig. 8: Islamic calligraphy of the word Quran (in Arabic form)

Perhaps this is a proof that the Quran is actually in the correct order that Allah has set since the time of Prophet Muhammad and does not change its position until now. This might be also an answer to man's sceptical and doubtful of the Quranic arrangement that exists today as an arrangement from Allah as a God, who often question, "Why are the chapters in the Quran not arranged in chronological orders according to when they were revealed? ", " Is the order of the chapters that we have today the same as during the time of the Prophet? ".

### CONCLUSION

With the formation of the graph that can evoke a sense of amazement towards Allah the Creator, it proves that He is the Capable and the Almighty for any arrangement made. The word Allah and Muhammad in Arabic form, created from the distribution graph of chapter numbers and the number of verses; and the word Quran, which is created from the distribution graph of chronological order of Quranic revelation proved that Allah is the God and Creator who has the power to create everything beyond human imagination. As Allah says in the Quran:

Say: "If the ocean were ink (wherewith to write out) the words of my Lord, sooner would the ocean be exhausted than would the words of my Lord, even if we added another ocean like it, for its aid." (Quran, 18: 109)

If the Qur'an is a human creation, it would be impossible for human to create two meaningful words from the graph formed through a study to produce the name of Allah and His beloved one, as when the Quranic revelation has completed, the Islamic number system, paper, or even graph still do not exist during that time.

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