

Number Relation in The Qur'an

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Abstract: This article aims to find out the forms of number relations contained in the Qur'an. The method used is library research or a library approach through writings in books and journal articles. The results of this study are known that there are editors of verses in the Qur'an that contain mathematical number relations such as equal to (=), less than (<), more than (>), more than or equal to (≥) and not equal to (≠).

Keywords: Mathematics, Mathematics in Al-Qur'an, Number Relations.

Introduction

Mathematics has a close relationship with life, even now mathematics is one of the sciences used in various fields of study. Mathematics is a syllable taken from the Greek 'mathematikos' and 'matema'. These two syllables have the meaning of 'all things learned'. While in Arabic language, mathematics is called 'al-hisab' which means counting (Abdussakir, 2009).

In Islam, mathematical concepts are interconnected and related to the implementation of religious worship. Starting from the number 17 cycles of prayer, 7 rounds of thawaf, as well as number codes in juz numbers, surahs and verses of the Qur'an. One of the verses in the Qur'an surah al-Qamar verse 49 also explains the case of the creation of creatures in the universe that have size and through mathematical calculations (Abdussakir, 2009).

One of the mathematical studies that is often encountered and full of mystery is the numbers in the Qur'an. Call it the integer 1 which is mentioned 61 times in the Qur'an and one of them is in Surah al-Baqarah verse 61. In addition, there are fractional numbers in 2/3 in Surah an-Nisa' verse 11 (Irawan *et al.*, 2005). However, in addition to the study of numbers, in the Qur'an there are also

matters relating to the relationship between these numbers. Number relation is comparing two numbers according to special rules (Abdussakir, 2014).

Number relations can be called the relationship between numbers. Suppose there are two sets of numbers, set A and set B, which are different. These two sets may be related. The relationship between the two is shown by each member of the set. Number relations can be expressed in words, such as "more than", "less than", "one more than" and so on. (Negoro & Harahap, 1985).

An example of a number relation is as follows: For example, if there are two sets A and B, each of which has elements:

$$A = \{1,2,3,4,5\}$$

$$B = \{2,4,6,8,10\}$$

$$\text{Let } A = x \text{ and } B = y.$$

From the two sets, it can be stated that the relationship between each of its members is:

- Member of A equal to twice the members B; or in mathematical writing that is $x = 2y$
- Member of A more than zero and less than 6; in mathematical writing that is $0 < x < 6$
- Member of B is more than or equal to 2 dannd less than or equal to 10; or in mathematical writing that is $2 \leq y \leq 10$

The number relations are as follows:

- a = b ; read as a are equal to b
- a < b ; read as a less than b
- a > b ; read as a more than b
- a ≤ b ; read as is less than or equal to b
- a ≥ b ; read as a more than or equal to b
- a ≠ b ; be read a is not equal to b

Therefore, in this article, we will discuss the forms of number relations contained in the verses of the Qur'an.

Materials and Methods

In writing this scientific paper, the author uses the library research method or library approach. The library approach or literature study is a research activity that uses data collection techniques from reading, recording and reprocessing library data obtained. Data collection in the library research method is carried out by collecting and researching writings from several books, journal articles and data from print or electronic media that are in accordance with the problem in research.

Results and Discussion

Relationship equals (=) in the Al-Qur'an

The Qur'an Surah Sad verse 28 tells about the words of the disbelievers of Mecca who said to the believers that later in the day (the last day) they will get the same reward. The following is the Qur'an Surah Sad verse 28:

أَمْ نَجْعَلُ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ كَالْمُفْسِدِينَ
فِي الْأَرْضِ أَمْ نَجْعَلُ الْمُتَّقِينَ كَالْفُجَّارِ

It means: "Should We regard those who believe and do righteous deeds as the same as those who do mischief on earth? Should we (also) consider those who are pious to be the same as those who have sinned?"

In the above verse it is stated that the disbelievers think that those who believe and do good deeds are the same as those who do mischief on earth. If the snippet of the meaning of the verse

is used as a mathematical sentence, then it becomes:

Let :

x = Those who believe and do good deeds

y = Those who do mischief on earth

So :

x = y

in the snippet of the verse above, namely in the sentence كَ, which means like or equal to (can be adapted to the sentence) indicates that there is a number relation in the Qur'an, namely the relation equal to. Likewise in the next verse which states that the disbelievers said: that those who are pious are the same as those who are immoral. This sentence can be used as a mathematical sentence to become:

Let:

p = pious people

q = People who do immoral

So:

p = q

So in the Qur'an, Surah Sad verse 28, there are two equal relations, namely which states that those who believe and do good deeds are equal to those who do mischief on earth, and those who are pious are the same as those who do good deeds. the one who commits immorality.

Relationship less than (<) in the Al-Qur'an

In the Qur'an Surah Al-Mujadilah verse 7 :

أَلَمْ تَرَ أَنَّ اللَّهَ يَعْلَمُ مَا فِي السَّمَاوَاتِ وَمَا فِي الْأَرْضِ ۗ
مَا يَكُونُ مِنْ نَجْوَى ثَلَاثَةٍ إِلَّا هُوَ رَابِعُهُمْ وَلَا خَمْسَةٍ إِلَّا
هُوَ سَادِسُهُمْ وَلَا آدْنَىٰ مِنْ ذَلِكَ وَلَا أَكْثَرَ إِلَّا هُوَ
مَعَهُمْ أَيُّنَ مَا كَانُوا ۗ ثُمَّ يُنَبِّئُهُمْ بِمَا عَمِلُوا يَوْمَ
الْقِيَامَةِ ۗ إِنَّ اللَّهَ بِكُلِّ شَيْءٍ عَلِيمٌ

It means that "Have you not seen that Allah knows what is in the heavens and on earth? There is no secret conversation between three people, but He is the four. And there is no (conversation between) five people, but He is the six. And there is no talk of less or more, except that He is with them wherever they are. Then He will tell them on the Day of Resurrection what they did. Verily, Allah knows all things."

In the meaning of the letter Al-Mujadilah verse 7 above it is stated the word *أَدْنَى* which means "less than". In this surah it is explained that there is no secret conversation between three people except that Allah SWT. is the fourth. The number is also mentioned 3, 4, 5, and 6 which shows the number of people who talk about secrets, as well as people who talk about secrets whose number is less than that number. From this verse, if it is used as a mathematical sentence, then:

For Example:

x = People who talk about secrets

So :

$x < 3$

So, in Surah Al-Mujadilah verse 7 there is a relation of numbers less than, which states that there are no secret speakers between three people, four, five, six or less than that number.

Relationships more than ($>$) in the Al-Qur'an

In the Qur'an Surah Al-Kahf verse 34 :

وَكَانَ لَهُ ثَمَرٌ فَقَالَ لِصَاحِبِهِ وَهُوَ يُحَاوِرُهُ أَنَا أَكْثَرُ مِنْكَ
مَالًا وَأَعَزُّ نَفَرًا

It means that "And he has great wealth, so he said to his friend (who is a believer) while talking to him: 'My wealth is more than yours and my followers are stronger'"

The verse above explains that there was an owner of many orchards who said to his friend that his wealth was actually greater than that of his friend. From the meaning of the verse above, it can be used as a mathematical sentence, namely:

Let :

x = His property (garden owner)

y = Hartaend's treasure

So :

$x > y$

In the verse there is a relationship more than indicated by the word *أَكْثَرُ*, which means more. This verse shows that the speaker is talking about the relationship between the owner of the garden and his friend in numbers, that is, the property of the owner of the garden is more than the property of his friend.

More than or equal to (\geq) in the Al-Qur'an

In the Qur'an Surah As-Shaffat verse 147 :

وَأَرْسَلْنَاهُ إِلَى مِائَةِ أَلْفٍ أَوْ يَزِيدُونَ ﴿١٤٧﴾

It means that "And We sent him to a hundred thousand people or more."

The verse above explains that the Prophet Yunus as. sent to 100,000 people or more. Based on the meaning of the verse, if it is made into a mathematical sentence, it is as follows::

Let:

x = The people of the Prophet Yunus as.

so :

$x \geq 100.000$

In that verse there is a number relation more than or the same which shows the number of the people of Prophet Yunus as. 100,000 or more.

Relationships are not the same as (\neq) in the Al-Qur'an

In the Qur'an Surah Al-Maidah verse 100 :

قُلْ لَا يَسْتَوِي الْخَبِيثُ وَالطَّيِّبُ وَلَوْ أَعْجَبَكَ كَثْرَةُ الْخَبِيثِ
فَاتَّقُوا اللَّهَ يَا أُولِي الْأَلْبَابِ لَعَلَّكُمْ تَفْلَحُونَ

It means that "Say (Muhammad), 'It is not the same as bad and good, even though the abundance of evil attracts your heart, so fear Allah, O people who have common sense, so that you may be successful'."

The above verse explains that Allah said to the Prophet Muhammad. to convey that something bad will not equal something good, even if something bad is more attractive. From the meaning of the verse above, it can be used as a mathematical sentence, namely:

Let :

p = something bad

q = something good

So :

$p \neq q$

In the verse there is a relationship that is not the same as that shown by the word *لَا يَسْتَوِي*, which means not equal to. So, based on the verse, it is emphasized that something that is of bad value, even though it is more attractive, is definitely not the same value as something that is good.

Conclusion

Based on the discussion that has been described, it can be concluded that Islam is a religion that is integrated with the study of mathematics. Mathematics is not just a science, but as a means of self-servitude to Allah SWT. In the study of mathematics in the Qur'an there is a sub-section on number relations. There are various forms of number relations in the Qur'an which include the following:

1. The relation of numbers equal to ($=$) contained in QS. sad verse 28.
2. The relation of numbers less than ($<$) contained in the QS. Al-Mujadilah verse 7.
3. The relation of numbers greater than ($>$) contained in QS. Al-Kahf verse 34
4. The relation of numbers greater than or equal to (\geq) contained in QS. As-Saffat verse 147.
5. Number relation is not equal to (\neq) contained in QS. Al-Maidah verse 100.

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