Biblical mathematics

In Biblical “mathematics” the following can be proved: 2=3 and 70=72.

In languages that use inclusive counting the number 3 is in many contexts equivalent to the number 2 in languages that use exclusive counting. For instance, in the case of inclusive counting as we find in the bible, "on the third day" is Sunday, if the first day is Friday, but Sunday comes two days after Friday in languages that use exclusive counting. The question is whether the day that something happened is counted as day 1 or not.

x=x-1

Although I said that in Biblical mathematics, 2=3, more generally, the rule is that x=x-1 if you go from Hebrew to English, and x=x+1 if you go from English to Hebrew.

What I am saying is that the Bible uses inclusive counting as was common in the ancient world and as it is still used in many parts of the non-Western world today. We in the Western world use exclusive counting.

Let me start with an example from Act 7:8:

RSV: And so Abraham became the father of Isaac, and circumcised him on the eighth day.

NET[1]: and so he became the father of Isaac and circumcised him when he was eight days old,

GNB[2]: So Abraham circumcised Isaac a week after he was born

Of these translations, only GNB is correct in English. RSV is ambiguous, unclear and unnatural. If the boy is born on a Monday, he must be circumcised on a Monday, 7 days later. If he is a born on a Sabbath, he must be circumcised on a Sabbath. In the Bible the date of birth is counted as day 1, the following day as day 2, etc.

I discovered this by accident one day in a town in Africa, when I asked someone for directions to a specific bank. He told me: Turn left on the third street and you will see it. So, I proceeded to the third street and turned left. I went all the way down the street, but there was no bank. So I turned left at the other end and went up the second street, and sure enough, there was the bank. Then it dawned on me. We had been standing on a street corner, and to the local person the street we were standing at was the first street, but stupid as I was, I only started counting from the next street. To me, the street I was at was considered to be street zero.

This topic has been covered in the UBS publication The Bible Translator (TBT 30 [3]: 340-343) and also in Notes on Translation (no. 108, 1985). The idea can be shown/proven from many passages in the Bible, but probably the most decisive is Lev 23:15-16:

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[1] NET is New English Translation or the NET Bible available at www.bible.org

[2] Good News Bible, also known as TEV=Today’s English Version.

NIV: From the day after the Sabbath, the day you brought the sheaf of the wave offering, count off seven full weeks. Count off fifty days up to the day after the seventh Sabbath.

The starting day is Sunday and the closing day is Sunday, 7 weeks later. This is a period of 49 days, but since you count the starting day as day 1, you reach to 50 when you arrive at the closing day.

This inclusive counting is always used and that is why on the third day corresponds to two days later in normal English (and Danish).

There is a more tricky expression, namely for three days and three nights. The problem is that when you count inclusively, say, three days from Friday to Sunday, there can only be two nights in between. So, we are dealing with a Hebrew idiom here that most people get very confused about, because a literal translation in English is utterly misleading. In Hebrew tradition, it is very important to say more or less the same thing twice. It sounds better to say three days and three nights than three days and two nights. Likewise, Moses was on the mountain for 40 days and 40 nights, just as it rained during the flood for 40 days and 40 nights, and Elijah travelled 40 days and 40 nights and Jesus was tempted in the wilderness for 40 days and 40 nights. To a modern, scientifically focused mind, it is difficult to understand that both of these expression refer to 40 days, day and night, or 40 days with the intervening nights or, to be exact: 40 days and 39 nights. No English Bible translation has as yet recognized and dealt with the problem, as far as I know. The whole expression is an idiom and must be understood as an idiom where the sum of the meaning of the words does not add up to the meaning of the idiom as a whole.

70=72

But how can 70=72. It is relevant for Luke 10:1 and 10:17 where most manuscripts read 70, but some read 72. Sometimes the symbolic meaning of numbers in the Bible is more important than the exact numerical value. So let us look at the symbolic meanings of these numbers. (For the symbolic meaning of other numbers please refer to the general article on number symbolism).

The number 70 has two different meanings. Because it is 7 times 10, it can stand for a complete/perfect number of rulers. God told Moses to choose seventy elders as rulers over the people (Numbers 11:16). See also Exodus 24:1, Judges 9:2, Ezekiel 8:11). The Jewish Supreme Court, the Sanhedrin, had 70 members plus the High Priest as chairman and ex-officio member.

It also has the meaning of being in exile among a Gentile nation or more generally it refers to the Gentile nations. This seems to go back to the time when Jacob went to settle in Egypt with his family of 70 people (Genesis 46:27). Sometimes the number 12 which stands for the Jewish nation, and the number 70 which stands for the other nations, occur together. In Exodus 15:27 (and Numbers 33:9) the 12 springs point to the promised land which the people were heading for and which was established from the 12 sons of Jacob, while the 70 palm trees point back to the land of Egypt which the Israelites had now left. The time in Babylonian exile (or more specifically, the time Jerusalem would be in ruins) was also 70 years (2 Chron. 36:21, Jeremiah 25:11, 29:10, Daniel 9:2, Zechariah 1:12, 7:4). (See also Isaiah 23:17).

When Jesus sent out the disciples as a trial before Pentecost, he first sent 12 disciples, symbolising that the Gospel was first to be preached to the Jewish nation (Matthew 10:5, Mark 6:7, Luke 6:13, Luke 9:1). Then he sent out 70 disciples (Luke 10:1,17) to symbolise that later the Gospel should reach to all the Gentile nations.

The number 72 had no significance in the Old Testament, but around the time of Jesus or before, there was a move to change the number for the Gentiles to 72 from 70, because the number 70 had a positive meaning to the Jews as the number of rulers. They suggested to give the number 6 times 6 times 2 to the Gentiles. Gradually the number for the Gentile nations changed from 70 to 72. Another possible reason for the number 72 is that the Letter of Aristeas suggests that there were 72 elders doing the translation of the OT for the Jews living in Gentile lands (6 from each of the 12 tribes). Whatever the reason, both numbers symbolize the Gentiles or Gentile nations.

This is why the Greek manuscripts do not agree whether it was 70 or 72 disciples Jesus sent out in Luke 10:17. It probably was 70 disciples, but in any case, it refers to the future preaching to the Gentiles.