

A debt minus zero is a debt.
A fortune minus zero is a fortune.
Zero minus zero is a zero.
A debt subtracted from zero is a fortune.
A fortune subtracted from zero is a debt.
The product of zero multiplied by a debt or fortune is zero.
The product of zero multiplied by zero is zero.
The product or quotient of two fortunes is one fortune.
The product or quotient of two debts is one fortune.
The product or quotient of a debt and a fortune is a debt.
The product or quotient of a fortune and a debt is a debt.



Difference Mathematics

Tim Farrington's math

Okay, as long as you have not died in prison yet, and the church has not dug up and burned your glorious heretical remains, I have a few odd empirical-mathematical practical issues I want to run by you. As a kabbalistic beginner, I find that I am unable in practice to distinguish between ∞ and 0, for starters.

But I can begin with 0. From there, $0 + = 1$, where + is "paying attention" to 0, = is non-difference. The equation denotes the emergence of a qualitative difference, an emergent *given*, where $1 \neq 0$.

1 happens, it is revealed, it is qualitatively different than 0.

$0 \neq 1$, \neq denoting a definite difference, and also, $1 \neq 0$. This is where I begin, then. Both these axioms seem more empirical than logically necessary, to be frank. \neq is not arbitrary, it is perceptible in a distinct, possibly Pythagorean way. The operation \neq is a qualitative event, whereas the operation = is a temporally arbitrary qualitative assessment with an inevitable element of retroflection; it is a useful fiction that ignores the time factor: "=" is already a statement that was true, and would require a new operation to assess the truth value now, whereas \neq is, always, given. Maybe I

am a platonic materialist here.

now, $1 + = x$, where 1 is given and not 0, + is “paying attention” to 1, and = is non-difference. The equation denotes the emergence of another qualitative difference, x, an emergent given which is neither 0 nor 1.

and also, here: $x \neq 1$ and $x \neq 0$.

Both 0 and 1 thus seem inherently dynamic, not to say unstable, under this operation, in that when +, the *attention function*, is applied to 0, 1 arises as something different, and when attention is applied to 1, x arises spontaneously as something different from 1 and 0. (The emergence of x seems on first glance to be an alternative to pain, while the emergence of 1 seems to be an alternative to despair. It (would) be interesting, in this sense, to compare notes with a tougher mathematician.)

now, $x + = ?$ There is no reason to assume it is 2. But this is the state of the contemplative art. It actually seems to me at this point in my investigations that

$x + = 1$ at certain times, and at other times that $x + = 0$.

I am not at all sure, this side of pain, whether x is a whole number. 1 is definitely a whole number as given, this side of goodness...

You have infinity in your tool bag, Rebbe. But if I use ∞ here, I lose the only real truth I can discover empirically, the qualitative specificity of \neq in any given equation. “ \neq ” is all I can count on! I do think ∞ is implied; and assuming ∞ , then I am quite sure that $\infty \neq 0$, $\neq 1$, $\neq x$, and commutatively. So ∞ is empirically meaningful. but it is impossible to begin with it, as far as I can tell, finitely speaking.

(The above are the mathematics of a Genius, that the Kabbalist is going to interpret below)

BRAHMAGUPTA



Brahmagupta was an Indian mathematician and astronomer who wrote two important works on mathematics: the *Brahmasphutasiddhanta* and the *Khandakhadyaka* and he was the first mathematician to use the concept of the zero. But right now people don't know where Brahmagupta's mathematics are derived from.

Answers to Tim Farrington

I have to admit that 0 and ∞ have a lot in common. Both are located at the two extremes of a long road, 0 at the bottom of a dark pit, whose bottom is impossible to reach if you fall in it, at the beginning of the road, ∞ is at the end of the road, lost in a fog at the end of an endless blue sky. They have similar mathematical properties: for example, when squared they are identical to themselves and they are the square roots of themselves. They disappear and both of them become 0 when subtracted from themselves, as $0 - 0 = 0$ and $\infty - \infty = 0$. They become themselves when added or multiplied by themselves, like this $0 + 0 = 0$ and $\infty + \infty = \infty$, and $0 \times 0 = 0$ and $\infty \times \infty = \infty$, but when we multiply them together, they become the unit of everything : $\infty \times 0 = 1$. They are also becoming 1 when divided by themselves as follows: $0 / 0 = 1$ and $\infty / \infty = 1$.

You can distinguish them only when you add any number to them, because $0 + n = n$

and $\infty + n = \infty$. We can say that they are reciprocal only relative to the operation $1 / 0 = \infty$, because $\infty \times 0 = 1$, but not for all the other numbers as well, because $n / 0 = \infty$ (except when n is ∞) but $\infty \times n = \infty$ and not 1. If $n = \infty$, paradoxically $\infty / 0 = \infty$ and $\infty \times \infty = \infty$.

So far so good !

Difference Mathematics

As far as the rest of your questions, they indeed are not questions but they look like axioms of a new mathematics of your invention. Let me ask you a question: is your math based on equations different from those that were invented by Archimedes? In other words, your mathematics is based on " \neq ", rather than on " $=$ ". To be specific, yours are not "equations" but "inequalities". If so, this is a new type of math, the math of "difference" as opposed to the "non-difference" math. This is a math that you have invented, and now it's me the beginner, and you the Maestro.

Let's go ahead with the assumption that your math is the "difference" math. This is an entirely new world that you are beginning to explore. This is a useful math to describe God, because it adapts well with the ideas of Hermes Trismegistus, the so called God of mathematics.

The theory, inspired by Him of the "negative theology" is as follows:" According to the Corpus Hermeticum, written by him, positive theology is not appropriate to capture the Absolute, because it stems from the ability of reason to move only in the plurality and diversity, unlike the One that is total unity and total equality. Naming God by the names that come from the sensible world, can make us fall into idolatry. Hermes Trismegistus in that book said: "*Since God is the Universe of things, no name is proper to define Him, since it should be necessary that God was called by all the names or that all things were called by His name.*" This means that no name can be attributed to Him. So from the positive theology that names God with definitions and properties that originate from the sensible world, we should switch to negative theology: no name can name God."

God can only be described by what He is not.

Your axioms include the sign “ + “, that has a new logic, in that it means “ paying attention to “, so if 0 is followed by +, it means rightfully that 0+ in itself is 1. The sign + gives body to the zero, making it “itself“, or 1.

Correct, this is a mathematical trick that I adopted in the Talmud of Scicli to identify the *logon* as a zero that is real, therefore 0+ or the part of the zero located on the other side of nothingness. So I agree that $0+ = 1$

And in your math 0+ means “paying attention” that 0+ is non difference, but unity!

So far so good !

The next sentence is a bit garbled, but I think the meaning is clear: the equation $1 \neq 0$ denotes the emergence of a qualitative difference and reveals that 1 is different from 0. And \neq is denoting a definitive difference. This is where your math begins and these are your two axioms. Fair enough.

So far so good !

Then you explain your philosophy as follows: “Both these axioms seem more empirical than logically necessary, to be frank. \neq is not arbitrary, it is perceptible in a distinct, possibly Pythagorean way. The operation \neq is a qualitative event, whereas the operation $=$ is a temporally arbitrary qualitative assessment with an inevitable element of retroflection; it is a useful fiction that ignores the time factor: “=” is already a statement that was true, and would require a new operation to assess the truth value now, whereas \neq is, always, given.”

Here is where your logics becomes beautiful: indeed \neq is not arbitrary, it’s a Pythagorean truth that nobody can dispute. It is the theorem of the difference, which is far from arbitrary, but perceptible in a distinct, possibly Pythagorean way ! It is a qualitative event: what is different, is different ! While the operation “=” is a temporally arbitrary qualitative assessment with an inevitable element of retroflection; it is a useful fiction that ignores the time factor: “=” is already a statement that was true, and would require a new operation to assess the truth value now, whereas \neq is, always, given.” Einstein would not have said better: “ = “ depends on its space-time position which is different for every observer. Who can say: it’s midnight for sure. Midnight for you, can be noon for another observer.

No you are not a Platonic materialist, you are “ enlightened “.

So far so good !

Here comes the good stuff. Yes indeed , if you say so, $1 + = x$, because 1 is given and not 0 and the sign + pays attention to the fact that = is a non-difference , i.e. an equality. And I agree that you can make the statement that your equation (remember that this is an equation, not an enequality) denotes the emergence of another qualitative difference, x, an emergent (reality ?) given which is neither 0 nor 1. Now here your logic becomes obscure, to the uninitiated, but later on it become clear what you say, that : $x \neq 1$ and $x \neq 0$.

This is impossible to deny, if you choose that the x, the variable, should be different from both 1 and 0. It's you that decide the destiny of your enequalities !

Now comes the portion that requires further study: the esoterical part and the influence of math on the human conscience.

You say: "...both 0 and 1 thus seem inherently dynamic, not to say unstable, under this operation, in that when +, the attention function, is applied to 0, 1 arises as something different, and when attention is applied to 1, x arises spontaneously as something different from 1 and 0. (The emergence of x seems on first glance to be an alternative to pain, while the emergence of 1 seems to be an alternative to despair. It would be interesting, in this sense, to compare notes with a tougher mathematician.)

Well I am not tough enough to give you advice on these issues: You are the person that define the value of the variable x, as an alternative to pain and 1, as an alternative to despair. You could have chosen other parameters, for example x equal to happiness and 1 equal to certainty, like in the cone of certainty. I would suggest you to change parameters, if possible.

Here come some more math which is difficult to confute. Why should one, with a Kabbalistic background be opposed to the fact that nobody knows what is x : " now, $x + = ?$ There is no reason to assume it is 2. But this is the state of the contemplative art. It actually seems to me at this point in my investigations that $x + = 1$ at certain times, and at other times that $x + = 0$. I am not at all sure, this side of pain, whether x is a whole number. 1 is definitely a whole number as given, this side of goodness."

This is due to the theorem of *Indetermination* of Heisenberg or to human instability?

My suggestion here is: to eliminate pain, drink several glasses of Nero d'Avola of good quality. Or better try to divide everything by ∞ and see what happens.

Then you rightfully say: "You have infinity in your tool bag, Rebbe. But if I use ∞ here, I lose the only real truth I can discover empirically, the qualitative specificity of \neq in any given equation. " \neq " is all I can count on! I do think ∞ is implied; and assuming ∞ , then I am quite sure that $\infty \neq 0$, $\neq 1$, $\neq x$, and commutatively. So ∞ is empirically meaningful. But it is impossible to begin with it, as far as I can tell, finitely speaking."

My final advice is: be content with the truth that you have already discovered so far, i.e.: " I do think ∞ is implied; and assuming ∞ , then I am quite sure that $\infty \neq 0$, $\neq 1$, $\neq x$, and commutatively. So ∞ is empirically meaningful."

I think you made a great discovery there: $\infty \neq 0$, $\neq 1$, $\neq x$, and commutatively. So ∞ is empirically meaningful." God exists and is an infinite different from 0, 1 and x.

I only disagree that He is different from 1, because the sum of infinite 0's = 1, but in spite of this small difference, Hermes Trismegistus would be proud of you.