Critical Thinking lesson:

The sum of all the natural numbers = -1/12 (?)

Now that you've watched the video, let's analyze what we've just been told. The sum of all the natural numbers = -1/12.

Reason is such a powerful tool that even in cases where you lack the mathematical sophistication to tackle bullshit, you can sometimes use logic to debunk it.

The series starts with the numbers 1 + 2 which gives the first sum, 3. If you list the natural numbers along the x-axis, and the sums on the y-axis, you will get a graph of a diagonal line in quadrant 1 that grows in only one direction. The farther out you go, the farther away from the origin you get.

For their crap to fly, they must prove that the graph will return to a point on the y-axis, 1/12 of a point below the x-axis. No matter what point they choose in quadrant 1, they can never do this. No matter how far they go, the graph will never reverse because it is impossible for the sum to decrease. That is why they relied on the ambiguity built into the concept of infinity.

Some red flags:

His source was a book on String Theory. At this point in time, String Theory has not yet been proven valid. While String Theory has no empirical evidence to support its hypothesis, its supporters believe in it primarily because of the mathematics upon which it relies. Now that I've seen the mathematics of String Theory and how they manipulate it to get the conclusions they need ... I think the theory might be in some serious trouble.

What justification does he offer for offsetting the series and then adding elements?

(hint: none)

He claimed that a famous mathematician, Euler, proved this. Follow the link ... Euler didn't prove it.

Ironic comments:

He says "Magically" (before 6-minute mark)

He says "You have to do the 'mathematical hokus-pokus' to see it" (before 7-minute mark)

I don't think he realizes the irony in his own comments.