

$$1 + 2 + 3 + 4 + \dots$$

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007 Kemeny, 4:00PM

(Tea: 300 Kemeny, 3:30 pm)

**Abstract**

In a 1913 letter to Hardy, Srinivasa Ramanujan wrote that  $1 + 2 + 3 + 4 + \dots = -1/12$ .

It is, and long has been, rather common for mathematicians of Hardy's stature to receive unsolicited manuscripts making similarly ridiculous claims. Typically these are consigned to the rubbish in short order. However, Hardy did not throw away Ramanujan's letter. Indeed, he later asked for Ramanujan to visit him in England.

In this talk, we will ask why Ramanujan's letter did not meet its expected fate. Indeed, we will ask the absurd question: Is there some chance that Ramanujan was right?

This talk should be accessible to Undergraduates.