

# Honestly? You have your work cut out for you.

Honestly? You have your work cut out for you. Mathematicians tend to be very wary of claims such as yours. You say you've proven Fermat's Last Theorem in 3 pages? Well, I have in my inbox a document containing two proofs of Fermat's Last Theorem and a proof of the Four Color Theorem. All in a single page!

Now, those proofs aren't correct. They just run around in circles while throwing truckloads of notation at the reader, before eventually asserting that the real substance of the theorem is obvious.

Mathematicians receive these things all the time. I'm only a graduate student, and I have more than a few crank manuscripts in my inbox. And we get cranks showing up at our departments in person, too. (If anybody wants to know why the age of the universe is constant with respect to time, just ask. I know a guy who can explain that to you.)

The worst part is that they never give up. You can take the time to patiently explain what's wrong with their work, and they'll turn around and email your comments to every mathematician they can find, asking these mathematicians to explain to you why their paper is actually right.

That brings me to my advice. The first thing you should do, before you talk to any mathematicians, before you even start writing, is to accept that you might be wrong. You say in a comment that "this one is real...I'm sure of it." To a mathematician, that's a big red flag. It tells us that you're one of those people who is too attached to their ideas to listen. It leads us to question whether you're willing to learn from us.

After you do that and after you write it up in LaTeX, you can share your work with a mathematician or two, or submit it to a journal. But if they explain why it's wrong, don't dig in your heels. Don't send it to thousands more mathematicians. Don't tell your critics that they've

misunderstood (it's your job to communicate your work so others can understand it). Take the opportunity to listen and to learn. Otherwise you'll just be wasting everybody's time.