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Adding Up the Riches of Community

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I am a Christian and a mathematician. How are those two things related? The fact that two plus two equals four doesn't change depending on one's religion, so it's tempting to think that the work I do in my classroom isn't related to the life of faith at all.

However, the longer I've been both "mathematician" and "Christian," the more I am convinced they have something very important in common. Both make me ask time and again: "What is true?"

As Christians, we look for and hold onto truth about who God is, what God is doing in the world, and how God is calling us to follow Him.

As a mathematician, I look for a different kind of truth. Many people are surprised to find out that there are countless math problems we don't even have a strategy to solve yet. Part of my job is to work on those problems and prove new theorems. It's a lot of work, but it can also be a lot of fun. Here's the thing about the mathematical search for truth: it's always done in the context of a community.

I realize most people reading this are not mathematicians, so let me tell you some of the things I've come to appreciate most from living within a mathematical community. In my experience, the community has three important jobs when I'm on a search for truth.

First, the community gives inspiration. I can't figure out which math problems are unsolved unless I read journal articles or I show up to conferences and interact with people. The community helps me find interesting new problems where there's still work to be done.

Second, the community provides encouragement. The kind of math problems I try to solve in my research are not things you can figure out in an hour or an afternoon; they may take weeks, months, or years to figure out. When I've tried a dozen different approaches and nothing seems to work, it's easy to get frustrated. That's why I, and almost all the mathematicians I know, tend to work collaboratively. That way, when one person gets discouraged, someone else can provide a new perspective and remind them of why they were interested in the problem in the first place.

Third, the community provides accountability. When I think I've solved a math problem I've been working on for a year, that's exciting! In fact, it's too exciting to keep to myself. The next step is to share it wherever I can: at conferences or in journals. If I've done good work, the community affirms it. If there are details that aren't quite right, members of the community call me out on it. The community holds me accountable for doing work that is consistent with the rest of mathematics.

Inspiration, encouragement, and accountability make for a healthy mathematical community. But I hope that these ideas feel familiar in your walk as a Christian truth seeker, as well. I, for one, can't count the number of times a homily or a discussion has challenged me to see something in a new light and pointed out a place where I have room to grow more deeply in faith. That's inspiration. My friends have prayed with me through dark, discouraging situations. That's encouragement. I rely on trusted friends to call me out when I say or do something that doesn't match up with what we profess to believe. That's accountability.

Inspiration, encouragement, and accountability are the gifts of the mathematical community that support and challenge me in my work. But beyond that, they're gifts to treasure as we walk and grow together in Christian community, too.

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