

THE NUTTY PROFESSOR

Colin Adams, a math professor at Williams College, knows the fear (and fear of boredom) that most students have of calculus. In order to combat these feelings, Professor Adams not only has developed a geeky alter ego known as Mel Slugbate, he's also just finished a new book, *How to Ace Calculus: The Streetwise Guide*. A&F science guy Rob Schiaff tries to find out if Professor Adams can really do the impossible: make learning calculus... fun.

Who is Mel Slugbate? He's supposed to be my brother-in-law from Texas, but he's really a character I made up to interest college kids in math.

Why? I think mathematics is innately beautiful. It is a beautiful field, it is extremely useful, it has applications, it's just something that I think everybody can appreciate. But a lot of people, because of bad experiences early on when they were in elementary school or high school with teachers that made them feel inadequate or for whatever reason, have this attitude that mathematics is this insurmountable object that is painful and that they don't want anything to do with. A lot of my goal is to try to convince them to listen to mathematics long enough to see the beauty of it. That's where the character of Mel Slugbate comes in—whatever way I can to get them into the classroom, to come into the lecture hall to listen to mathematics.

Where did you get that awful suit? My wife and I had a bad-taste party when we got out here, and one of the guys from the math department came dressed in this plaid suit, just a nasty polyester plaid suit, really ugly, with a matching polyester plaid tie. I said, "I have to have that suit," and he said, "Well, I paid a dollar for it." So he gave me the suit. And then after Mel gave a talk here in his new suit, [Bill, the guy who gave it to me] came up and he was like, "You didn't tell anyone it was my suit." So then I put on my credits—at the end of the talk I roll these credits—and I put "Suit Belongs to Bill," and he said never to put that on there again.

Do any people ever get offended and see some of Mel Slugbate in themselves? It's interesting. I figure, because Mel's from Texas and talks in a Texas accent, I got invited to give this talk in Texas. I'm like, "What are they gonna do? They're gonna kill me out there." And the interesting thing is, nobody sees themselves in Mel Slugbate. After the talk in Texas all these people came up and said, "Oh, you're so funny—you're making fun of those other people in Texas."

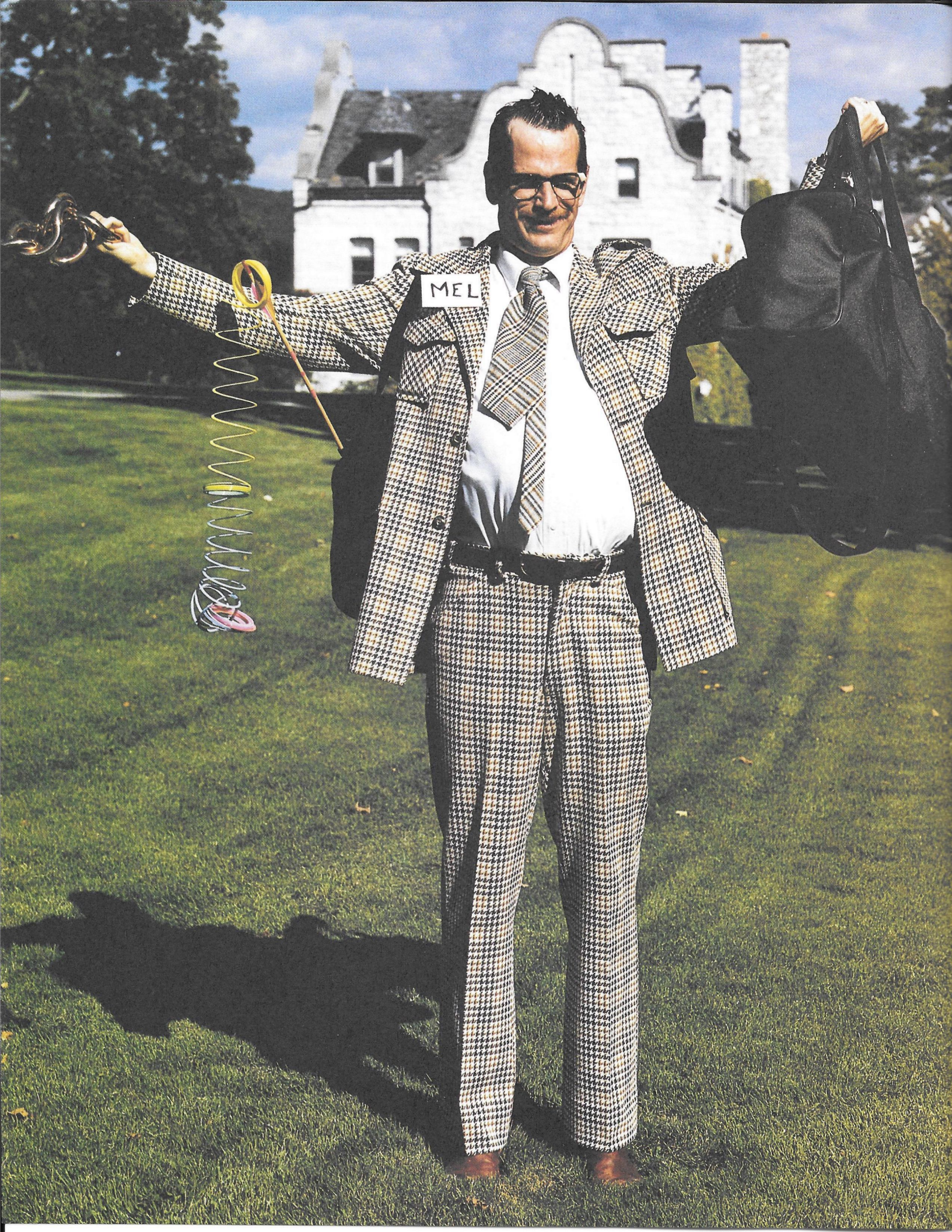
You said before that mathematicians are inherently beautiful. But you don't see very many really well-dressed mathematicians. That's very true. In fact, the typical image of a mathematician is someone who doesn't pay much attention to what they wear.

Part of the reason I think that math is different than other fields is you don't have to prove that you're an authority in math. Your math does it for you. You can solve the problems; they can't. English and the humanities, it's much more subjective, and so you need some way of establishing yourself as an authority figure—to say, "I'm the one who knows what's going on, and you should listen to

me, because I can solve the problem and the other people can't." But this can also be a disadvantage. If you think you're right and you're not, it can be really bad. If you publish your big result and it turns out that it's false and someone finds a counter example and you've already been in print saying this is true, it's terrible. It's as embarrassing as it can be, and you can't defend yourself—you're just wrong.

I think the funniest parts of the book were the true parts. Do you have a favorite true math story? I'll tell you a story about something that I did when I was teaching a calculus class at the University of California, Santa Barbara. I was just a visitor for the year and they didn't know me from anybody. So the very first day I dressed down—t-shirt, jeans, sneakers, and I went and sat down in the front row. And then I had my friend who teaches in the math department come in. He goes to the front of the room and says, "Hello, I'm Colin Adams and I'll be teaching this lecture and we're gonna start right up. Let's start by looking at some inequalities." And I'm just sitting there taking notes and he's up there lecturing. And then he says "So the first thing we'll do is we'll multiply through by that denominator." At that point I looked around and I raised my hand. He looked at me and goes, "Yes?" "Uh, excuse me, Professor—isn't it true that when the denominator is negative you have to change the direction on the inequality?" And he freezes and he looks at me and goes, "If you're so darn smart, *you* teach the class!" He throws down the chalk and he storms out of the lecture hall and there were 300 students sitting there with their mouths open just like, "Oh my gosh, what just happened?" They were just stunned. So I sort of looked around and then I stood up and I said, "Okay, I guess I will." And I went up to the front of the room and I said, "I guess I'll finish the inequality." And I picked up the chalk and I start going through the inequality. And the class, they're just stunned. They're all just stunned. And then slowly you'd see a smile here, a smile there, a student who was figuring out what was going on. But the majority of them are like, "What's going on? Why are we listening to this guy?" So I finished the inequality and I said, "Well, he left a pile of syllabi on the desk—I guess I'll just hand them out." I started handing out the syllabi and more people are figuring it out and I finished the whole class that way. By the end of the class, I would say that maybe 90 percent of them understood and there were still 10 percent of them going, "Why are we listening to this guy?"

Is there anything a student has done to butter you up to get a better grade? There have been things that students have *tried* to do to butter me up, but they don't work. There was this one time where this student was having some trouble, and I got the exam back from him and there was a \$100 bill pinned to the exam. I was like, "Okay," but of course I didn't take it.



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