

[Episode 22 - A Conversation between Rachel & Tori]

Hi everyone. This is Rachel White; I'm Tori Roberts, and we're here to talk for a few minutes about our experiences, why we like math, why we're doing math, things we like. So Rachel, you are a math student. You're in math 5A, right?

(Rachel) Correct.

(Tori) So that's the first semester of our calculus series here at Cabrillo.

(Rachel) Calc one, it's like real math. I did not get to take the calc series in high school. I just got to algebra and flunked that anyways and carried on with the rest of my school.

(Tori) But you're doing well in your calculus class now. I hear you talk about it.

(Rachel) Yeah, it's weird. I loved pre-calc, and I'm really enjoying calc one, which is exciting because hopefully calc two will be a lot easier, because I hear that's terrifying to get into. So we'll see; everyone seems to hate it.

(Tori) I loved calc two. I thought it was a really fun class. Although from what I hear around STEM, I'm kind of the minority in that.

(Rachel) What are you in now?

(Tori) I'm in 5C right now, just finishing up the third semester.

(Rachel) Exciting. You're almost done with calc. You get to move on to linear algebra.

(Tori) Yeah, differential equations too in my near future.

(Rachel) That's even more exciting.

(Tori) I think so. Calc two is really fun. It's very computational, which I like; a lot of people don't like as much.

(Rachel) Oh, like plug and chug kind of stuff?

(Tori) Yeah, very mechanical, like understand the system, and work with the system. It's not as theoretical as like right now in calc three, we've spent all semester trying to practice understanding 3-D and visualizing it, and in

linear, you just work with unheard of dimensions, like many dimensions. So yeah, so not even in this world. I don't know; I shouldn't talk; I'm not in the class. Right now we already talk about something called hypervolume. That's you have the volume of something, and then once you get into a fourth dimension, it's hypervolume, which you can't even understand. Even my teacher understands that it's inconceivable. It's like don't try to understand this because it doesn't make any sense, but we're going to work with it anyways. It's weird. It's cool though.

(Rachel) I feel like I'm just memorizing things in calc one. It's just formulas.

(Tori) I think every math class you take, it becomes more and more rewarding I've found. I use this example a lot, but one of the most exciting things that happened to me in math 5B, which is the second semester calculus, we were doing these problems, and we were stuck on something, and my teacher goes, "Okay. Who remembers how to complete the square?" Which seems like such an arbitrary not useful skill that you learn in your algebra class, and it finally had a purpose, and it made everything better, and I thought "Wow. I hated this when I learned it. I thought it was so dumb."

(Rachel) Yeah, that's how I feel right now.

(Tori) Yeah! But the further you go, the more you get to use your tools. You've been accumulating all of these math tools for the past few years and you finally get to start using them the higher you get.

(Rachel) I hate memorizing stuff, so yeah, we'll see how that goes.

(Tori) It's cool. It's not so much memorizing. I think you get to realize all the things that you know. Because you might seem like you don't know that many things, but you've been learning so many things you get to realize it. The biggest shame in people refusing to continue into higher level math. They're missing out!

(Rachel) Like you worked so hard for so long, you just want to get to the end and be able to step back and see everything. That's cool. I can't wait for that.

(Tori) It is really exciting. You're almost done with this whole semester, which is crazy. We're two weeks out from finals right now?

(Rachel) Yeah. Oh my god. I had a quiz on Monday and I'm just like "Aaaah. I only have a weekend." I know. I'm sure it gets more stressful the further you go. [laughs]

(Tori) It's all stressful from the beginning. We're all feeling it. So, big question that we're here for I guess. You are a lovely woman taking these higher level math classes. Do you have anything to say about your experiences dealing with that? Or what you like/dislike about it?

(Rachel) Yeah, I guess I kind of have an interesting perspective. So I did all of my high school in LA in public schools, which was really interesting and really terrible and shitty? I don't know if I can say that, but maybe Damien will just edit it out, but it was really hard learning math in LA for some reason. The teachers are obviously underpaid and overworked, and students are dealing with so many things, and it's tough. It's really tough to care about math. It's very low on the totem pole. I think in LA in general humanity majors are really important there, and people are going to seek that out.

(Tori) It's not like living in the Bay area. We're right by Silicon Valley, tech industry right here.

(Rachel) Exactly, here it's like everyone's some sort of engineering major, which is really incredible. Coming here, I was totally floored, because everyone I talked to was super into science and engineering, and that was something totally new. I went to a community college in Santa Monica, and I've never met a computer science major, except for my boyfriend, but he's from the east bay area, so there's a lot of tech stuff anyway. So he came from that and moved to LA, so it's super strange to come here and everyone's in computer science, so it's cool, which is the weirdest thing, because everyone in LA is an actor or a model.

(Tori) It's so different. I mean we're generalizing hardcore here but it's kind of true.

(Rachel) Right, that's my experience. It's kind of a generalization, but that seemed to be the theme. Here the STEM building is beautiful. It's new, and it's taken care of, and in LA, our computer science/engineering building was from the 70s and totally not kept up.

(Tori) Clearly not a priority.

(Rachel) Yeah, exactly, kind of pushed into the side of the school where nobody saw at. So at the time they were building a brand new gym, which

says so much about LA. Generally sports is a huge deal and psychology is a huge priority for them apparently. Their psych building was new and they had all new facilities. So it's kind of crazy. But I don't know, maybe I was living in a bubble, and that's just what I saw, because there's UCLA and JPL, but I feel like everybody was transplanted from elsewhere and came to UCLA or JPL.

(Tori) Right, it wasn't the LA community.

(Rachel) Yeah, exactly.

(Tori) That's an interesting perspective. It's probably pretty true though.

(Rachel) It kind of seemed that way with the people I ran into. Not that I know everyone in LA, of course. There's like 15 billion people or something crazy.

(Tori) So you've enjoyed your move up to the... almost bay area.

(Rachel) It's refreshing and... What's the word? I guess it's inspiring, because there are definitely a lot of women who are interested in math and STEM which is nice.

(Tori) It is nice. I definitely have a lot of friends who are women who are pursuing similar goals that I am, and it's nice having that community and knowing there are other people, like, if you wanted to pursue something like this when you were living in LA, do you feel like it would've been harder or you wouldn't have as much of a comradery of people around you?

(Rachel) I feel like I would probably suffer greatly if I was a math major or something in LA. I feel like there was facility and the culture is like "Oh I'm no good at math." It's cool to be ditsy, or it's just cool not to care generally in LA which makes it so hard to do anything. Like, how do you live life like that?

(Tori) That's hard to hear, but also nice to hear as someone... I've grown up here in Santa Cruz most of my whole life, and it's easy... I know. You look at me like wow, you're so lucky. It's so easy to forget how lucky that I am that I've grown up here I mean right on the beach for starters, but also in a community that's so liberal and accepting of people doing whatever they want to do.

(Rachel) Yeah, super liberal. LA was liberal enough, but Santa Cruz is like a whole other... like genuinely liberal.

(Tori) We really are. It's really nice living in a community where I feel so comfortable being the person I want to be, which you don't get that everywhere. Yesterday Rachel and I are both involved in the math club here, and we were hosting an integral bee, which unfortunately you didn't get to witness. It was quite fun, but it was like a spelling bee, but with integrals instead. And while I was sitting there watching these two people do integrals on the board, and everyone was watching and getting excited, and I remember thinking, wow, I'm so happy that these are the people I'm friends with. I'm having such a good time. They're having such a good time, and they're totally supporting me having such a good time at such a weird, nerdy event.

(Rachel) Yeah, definitely, that's awesome. I feel like I missed out on that feeling of comradery, and it's totally okay to be into "nerdy things." That's okay and I've never experienced that, and it's almost overwhelming. When I got here I was almost overwhelmed. I was like I want to move back to LA, like everyone's too nice; everyone's like too genuine of a person here. I can't handle it. It wins you over though.

(Tori) And the community we've gathered within our math club, it's really special I think.

(Rachel) When we went to the museums in San Jose, that was my first introduction into math club, and I was so infatuated with what everybody was doing, and everyone was so comfortable, which was such a weird thing, because that's a hard thing to achieve, to just be comfortable.

(Tori) It is. It's harder than you'd think, and it's nice having it.

(Rachel) Yeah, but now I'm in math club and it's the same thing. They're so nice and genuine, and you feel so comfortable in the environment.

(Tori) You kind of have a different bubble now, huh?

(Rachel) Oh my god, yeah, I guess, yeah... Very different bubble. It is a bubble. It's nice. It's like a protective shielded bubble, whereas the other one was more toxic.

(Tori) We have that bubble here, and we're able to really be who we want in our bubble.

(Rachel) I love that.

(Tori) Well good. I'm so glad that you ended up moving here, and you were able to join our bubble and be a part of it. You've been a great addition to our club this past semester. We've loved having you, and I'm glad we've made it worthwhile.

(Rachel) Yeah, definitely. In between... I've been sick like four times I think in the last two months.

(Tori) Yeah, you've had it rough, huh?

(Rachel) It's a new environment maybe. I was exposed to different germs and viruses and stuff, so you try to get used to it. Too clean here. The air is too clean here; it's not smoggy. [laughs] I don't know what it is.

(Tori) And you're driving back down to LA tonight, right?

(Rachel) So we're going back tonight, and we're going to be there all weekend, and we're going to eat... everything. We lived in the Santa Monica-Venice area; it's called the west side, and every time I think about Santa Monica, I just envision where all of the food places were. Like everything that I think of is in reference to the food places. It's slightly embarrassing, but...

(Tori) But also exactly what I would be doing.

(Rachel) I know, it's kind of crazy. Santa Cruz is not known for their food, so...

(Tori) Unfortunately. All of the other great qualities, we have.

(Rachel) Except for food. I mean it's fine. I'll just eat at home more I guess.

(Tori) That's probably for the best.

(Rachel) I know. Maybe that's why everyone is hiking...

(Tori) And healthy.

(Rachel) And picnicking. They're like super healthy so they're like, we don't need to eat out. Maybe... [laughs]

(Tori) Well, we should let you get on the road then, but it was a good conversation. Thanks for chatting.

(Rachel) It was super fun, and hopefully I'll be back again.

(Tori) We'll definitely bring you back. Alright everyone, thanks for listening!

(Rachel) Thanks!