1 Weverton: So today we're going to do somewhat similar from what we did yesterday. But The difference is going to be that we're going to try to go back from elementary school until now so we just gonna try to get those stories, So let's go back to elementary and middle school together. Can you tell me about elementary school math experiences that you remember?

2 Miriam:um, I guess my first memory. So I mentioned the teacher yesterday that didn't like math, we had another teacher coming in in fourth and fifth grade to do geometry with with us. And I remember really liking what we were doing with that teacher, I remember liking the rigor of things, I remember that like, we were just defining, I remember, like, square rectangle and parallelograms. And I remember really liking the fact that a square was all of these things, but not vice versa. And like, how this teacher was really stressing, like, which way implications go. And I like the logic behind it. I like the problems that probably weren't. I mean, the probably were very simple. But again, this teacher was very careful. But the logic there, and I really like that. So that's definitely something I remember.

3 Weverton: What was the best thing about your elementary math school experience?

4 Miriam:um, I mean, probably started to enjoy the beauty of rigorous argument. Like the beauty of it was basically like playing a game where you have set the rules. And if you're playing them, right you win in a way, like because she was she was asking us not really to prove things like proof is too big of a word. But she would like ask us, which of the following things are true, like is a square or parallelogram or is a parallelogram a square. So like, I enjoyed starting to think about those ideas, playing around with those ideas, more so than I also remember some other problems that I didn't enjoy as much like, apply formulas like compute the volume of this, or compute the error of that. And that was like, okay, I'm keeping the numbers and just like them mean, that wasn't as much fun. It's not like I didn't like doing it. It was, it was easy for me, I have always found math, not too hard. So it's not It wasn't like something. I didn't mind having to do it. It wasn't something overwhelming. But I definitely didn't enjoy playing in things in the formulas. I enjoyed more when there was some sort of reasoning involved.

5 Weverton: So What was the worst thing about your elementary school math experience?

6 Miriam: Um [Thinking] I don't, I don't think I had bad experiences. At that point. I wasn't super passionate. Like, it wasn't. It wasn't something I love at the time. But it was something that was quite easy for me. So I think at that age, If You don't have to put a lot of work into something, even if it's not your favorite thing, you don't

mind too much. So let's say there were topics I like more than topics I like less. So like I said, maybe playing new things into formula wasn't something I love to do. But It wasn't something like it's not something that heated.

7 Weverton: And were you identify as being an early achiever in math?

8 Miriam:um, I mean, I don't know if [inaudible] in elementary school is a big achievement, like I was definitely doing well in math in elementary school. But I wasn't going above and beyond I was just doing my homework. I wasn't doing anything more than that

9 Weverton: What about middle school?

10 Miriam: So I think like the rest of my classmates and middle school were really weak in math. So there was a huge gap between my score, which is always excellent. And everyone's else score which was always really bad. So I think like I was, given the such, like that level, the class was so low, I didn't have to do any work to succeed. So it looked like I was doing incredibly well. But probably the tests were also really easy just because their level was so low. I don't know why I just ended up in a class. You know, the other subjects this there wasn't the big difference. But in math, there was just like, we were graded out of 10. And I used to get 10 every single time like so we're grading we integrated with like words that corresponding to numbers, but if we translated in numbers out of 10 passing was a six, and everyone consistently scored the four or a five, and I would consistent consistently score a 10. But I think it was a set of tests were so easy to try and bring the others up. So I don't know, I don't think I was doing anything exceptional. I actually remember those tests really well. I remember that as long as I learned the definitions by heart, which was something I could do, then applying them was never hard. It was always a very basic application. So I don't think I was doing anything exceptional. I just think I ended up in a class which everyone else really hated math.

11 Weverton: Interesting. And how did you overcome any negative experience mathematics?

12 Miriam: So like, at those level, elementary middle school, Like I said, I really didn't have bad experiences, It was just very easy to achieve very good results at that point. Later on, later, and I had to struggle a lot more. So like, then when I went to when I went to college, and my first years here, it wasn't as easy to succeed. And so then like it took the termination, I think like one of the things. I'm very good at following is catching on giving roles to myself. So if I do bad in a test, I will be upset for a few hours, but then I will start the following morning. And it would be like okay, it means I need to work more on this. And I will easily force myself to work more on that on a daily basis. So that could probably be like my strategy.

13 Weverton: Nice. And can you give me some positive impressions of some of your math teachers from elementary or middle school?

14 Miriam:um, so from my Elementary School. I really, I definitely really liked how the geometry teacher was very precise, a very rigorous, from middle school. Like I said, it was all watered down quite a bit. So I think my teacher was trying to be as clear as possible and simplify things as much as possible. I liked her I liked her explanation, they were always very clear. And I liked how she was working examples in class making us work through examples. So, yeah

15 Weverton: Nice. And can you give me some negatives, impressions of some of your teachers?

16 Miriam: Um, I think like except from the fact that that really like her rigour, the teacher added elementary school was too strict outside of math. So because they think in math, it's very important to be super precise. But then like outside of it, If you were like, using the wrong color to write something, she would be really upset. And then like we had to like, write everything in the column exactly like she wanted. And I know that that is was useful to make us very precise. But also, we had to write the unit in black, the so like if the number was like 128 minutes, write 8 in black 2 in red and one in blue. And then if there was 1000 them going green, and I was I found that terrible. I kept having to switch panels like, why am I doing this? Like, I thought it was a bit much, you know, like, that strategy.

17 Weverton: Was she trying?

18 Miriam:she was trying to make us understand the value of those. But also, like, it was a bit much

19 Weverton: interesting, because when I teach place value, I asked my students to do not like instead of doing if we're doing like standard computational algorithm. And instead of doing things like common things that we might do, like, I don't know. Like, instead of writing something like these, I will tell them, right for me something like this. Something like that. Never, like, no naked digits. [Miriam: Yeah] that's how I keep trying to teach the…

20 Miriam: See, but at least you don't need to switch pan. [Weverton:yeah] I just thought that I was I mean, we were in fourth grade by then. And I think we got that. Like I think that was well established and maybe time that we could move on and just use one pen.

21 Weverton: I don’t, I don't know if the colors would help me. When I was a kid. But that way would.

22 Miriam: Yeah, I mean, I'm sure they helped me at first, but I just through the like past second or third grade, then you understood that and then maybe we can stop.

23 Weverton: Okay, so let's talk a little bit about your early experiences at home. So can you tell me about your relationship with your, were you raised by your parents? [Miriam:yes] with your parents and how they thought about your mathematics learning?

24 Miriam: So my parents were never really involved in my school. As in, they cared a lot, they want to talk to my teachers. But as long as I was doing okay, They would not interfere. So they never helped me with my homework. And they, and they never asked me if I had done my homework or anything like that, like, as long as my teachers were happy. My parents never really asked questions, which is something I like, personally, because I liked being independent. And I think it helped me because that way, like I was the only one that was responsible. And it's not that. So they always check that everything was okay. So they always like check with my teacher. And in the very few moments, like, for example, at the very beginning of my mentors School, I needed someone to help me learn to write. So my grandfather said with me, and definitely helped me with that. And that was, I was not happy to do that I complained a lot. So that was they did definitely came to help when needed. And also like a couple of years later, my dad took my music teacher and thought that there might be a problem. So he sat down and told me something. So definitely that when needed, but most of the times they was not. So they would just stay side. So they never really taught me any math.

25 Weverton: So What did your parents tell you about math and your expectations of succeding? was there any conversation at all about it?

26 Miriam: So, um, not really, because I never had problems in math. So we never, they never had to sit down with me and talk about it. But they also never made negative comments which are not very common. So like, I was not under the impression that math was a terrible subject and that everyone should fail that I was under the impression that it was just a normal subject. And that was expected to do okay.

27 Weverton: So If you could say something? How would you describe the fact that your parents influenced you to your school success?

28 Miriam: I mean, they, they told me to do what I had to do. So even if they didn't go into the details on my homework, They told me that my homework had to be done.

Like, whenever I got to school, and some of my classmates, maybe let's skip a couple problems. I was like, that would make me so nervous. It was just, I would start I wouldn't sleep at night if I hadn't done all of my homework. So that's something that definitely they told me. But they never went into the details, like as long as I could do it, and they didn't check that I had done all of it.

29 Weverton: So did your parents or other close family and friends have careers or some kind of exposure to math?

30 Miriam: No, [Weverton:no], the closest we, is I have an aunt that works in information technology. So it's just programmer. But that's, that's the closest everyone else's quite far from math.

31 Weverton: doing think that influenced you somehow?

32 Miriam: not really, because she didn't even live in the same town as us. So I didn't really see her working or anything.

33 Weverton: All right, High School. So What was the best thing about your high school math experience?

34 Miriam: So I had a really good teacher in high school. And she really tried to show us why she liked things. So I actually went to high school. So in Italy, you don't choose your classes, you choose a high school, and then you take whatever classes they offer. And everyone in that school takes the same classes. But In a way, you're like picking classes at the start. So the classes I picked were mostly focusing on classics and literature. So I actually didn't have that much math, I had like the minimum requirements. But so our teacher knew that she knew that she wasn't supposed to teach us a lot of math, we didn't have a lot of classes. But she was trying to show us why it was worth learning it in a way that it really liked. So she would always make comments about this is something I really like this is something I hope you guys can appreciate. So that definitely helped me that's that's when I started like it more.

35 Weverton: Nice, and what was the worst thing about your high school math experiences?

36 Miriam: It was probably not very intense. I mean, we didn't do that much math, but I chose that. So I can't complain about it. But I wish I had learned more in those

years. But I also choose the school with very little math.

37 Weverton: So why did you make that choice?

38 Miriam: Because at the time, I didn't really, I wasn't super passionate about math, it was actually very close call between school specializing more in classics, and one specializing more in science, I actually changed my mind twice. And then the second time, they didn't allow me to switch back. So it was also fait, meant to be Maybe, because I would have switched. But then the other school was full. But I was it was a very close call I I didn't have a strong passion in middle school, I kind of liked everything is liking everything, it wasn't sure what to do. And then it was like, I had to narrow down to schools. And then I was like, okay, it's one of these two.

39 Weverton: So like you said, You only need to take like the minimum math requirement in high school

40 Miriam:in the school in which I was Yes.

41 Weverton: Can you explain to me better what that would mean? Like, what would that look like, like this minimum requirement?

42 Miriam: So I would say in Italy, there's, there's two, after Middle School, there's like two separate parts. If you want to take a school that prepares you for a job, then you go that path. And then if the job you're going to undertake like, like needs math, then you do more math. If the job doesn't, then you do less, but it's like very career oriented, the path I chose was the path that would then lead you to go to college if you wanted to. And so then from those schools, There was one with more scientific subjects and one with less scientific subjects. And, of course, like to make room for classics and literature and art and other things. So I went to the the literature path. But then, so we had a little less math, we had enough math that we could survive University mathematics if we wanted to, which is the reason why I chose it because there was a bit more complete, like there was a little bit of everything. [Weverton:Yeah], while the other one is more like science, and then you can go back, so.

43 Weverton: Interesting. And In what ways have you been encouraged to excel in math in high school?

44 Miriam: um, So I think this teacher kept bringing up what she liked us it was she like inspired us to maybe read more about it, maybe watch a documentary, or read a book or something. She made suggestions. Or sometimes she would be like, there's this really cool documentary on TV tonight, you should watch it or like there's this book that I really like, that maybe explains a certain topic or the story of a certain mathematician, you should read this. She also is the person that made me go to the math Olympiad. So like she encouraged me to do that.

45 Weverton: Did anyone ever discourage you from pursuing that in highschool?

46 Miriam: Not in High School, no.

47 Weverton: Alright, let's jump to college. So in college, can you tell me about your experiences as being a mathematics student?

48 Miriam: So in college, it was, things got a lot harder. So I wasn't expecting not to work at all, just because I had to work throughout that point. But like, from elementary school, up to high school, if I just paid attention in class, I was okay, I could do my homework, and I could score, top score and test and like I never had to, to work particularly hard for it. But then I mean, I was of course expecting things to change in college, but they changed a lot. And so part of like it was mentioned yesterday I was a little more behind than I was expected to be. And also, the professors were, like, had this strategy of telling us that we failed to help us to motivate us to do better. So instead of telling me, This task this terrible, because you have no idea what complex numbers are, read this book and learn this, They were just like, tell me how terrible that was and stop there. So I didn't really see how to improve. And I liked the maturity to look for books for myself, because I didn't know which books to look for. So that was like the beginning was definitely I was a bit confused. I didn't know what to do.

49 Weverton: Uhum, Okay, Can you describe a memorable experience in your college math classroom?

50 Miriam: Um, so I think there are many memorable moments, there's two classes that I really enjoyed. One was analysis my first year. So it's kind of the equivalent of what could be first real analysis class. Yeah. And so the professor there Like to give us the theorem that class before and tell us and try to prove it, and then we would prove it the following class. And I really enjoyed doing that. And I remember the first time I managed to prove one that was really happy because he didn't expect us to prove that completely, because he was like, This is hard, but you should try because it's good. And then you will understand the proof better, and then give it to you. And I remember the first time I got it, right, I was really happy.

51 Weverton: Nice. I remember my analysis classes, I always, I always felt so lost. Had no idea what was happening. Alright, so let's talk a little bit about math Confidence. So if you're to rank yourself from one to 10, one, the least confident and 10 The more the most content, how would you? How would you rank yourself in middle school, elementary school?

52 Miriam: In Middle School, definitely 10. Like, I knew I could do whatever they asked

me to do. In elementary school probably nine because I knew I could do what they asked me to do. But I wasn't so far ahead. Like with respect to what they asked me in class, like I wasn't, I wasn't so sure that like that I could def. In middle school, there wasn't anything that could have happened to make me feel that in elementary school I didn't think about it that much.

53 Weverton: Nice what about in high school?

54 Miriam: probably still nine, like I was, I was aware that there were many things that couldn't do. But in terms of what I was required to do in class, I knew I never struggled. So I was confident that I would keep doing okay.

55 Weverton: Nice, and what about in college?

56 Miriam: It dropped a lot. Like, three.

57 Weverton: Really? Woah

58 Miriam: I was like, the end of my first year, I just wanted to quit and go do something else. And then like, I kept not quite getting what I wanted to get. So like, I always set goals for myself, and I never quite achieved those goals. So

59 Weverton: Why did you want to quit?

60 Miriam:um, My first year was hard for lots of different reasons, I was also in a new country. And I didn't really find like, a friendly environment. Not not because not that anyone was not kind to me in particular. But just like, no one was particularly friendly, either, so I was I didn't really want to keep staying there.

61 Weverton: I see. Was there like? I don't know, you went to England, right? You mentioned yesterday, was there like a great body of international students or not really?

62 Miriam: Yes, there was But we weren't really like. So in my program, The program was very competitive. So we were ranked against each other. So It was hard to find someone that would want to help you. Because at the end of this of the year, our grades, were really scaled in a way that like only a certain percentage of us with do would get an A. So It wasn't We weren't encouraged to help each other. It was kind of like if I know the answer, I'm not going to tell you because then like what do we gain from it? So it was it was a bit? I mean, it's it's not like People were intentionally been not nice of each other. But in practice there were there were many people that would want to just help you just because they were generous.

63 Weverton: Would that? Do you think that would also happen in Italy? Like in the university? like this competitive?

64 Miriam:So, I've never been in a university Italy, but I don't think so. Because I think the grading system had a major role in that The fact that like, people knew that they wanted to be in the top 20%. Well, that means that you want everyone else to be at the bottom 80%. Well, in Italy, it's more like you want to do well. And as long as you do in practice, there will be people that do well, the people that don't, but the system allows for everyone to get 100% if everyone does well.

65 Weverton: So interesting. All right. So talking about grad school. So how math confident do you feel during grad school? How is your math confidence?

66 Miriam: Um Seven?

67 Weverton: Why is that?

68 Miriam: So I'm treating like six is the past, like in my mind. So like, because I'm usually like 60% of all you need to pass. So I think I'm like, I know I got here. And I know that like I faced challenges to get here, which makes me think that I can probably face the next ones that will come. I also know that I was accepted into this program. So someone probably if they could do it, and they have experienced, so I guess they probably think it's okay. I have passed the exams I needed to pass in my first few years in a timely manner that makes me think that be able to keep up. But also, I'm just starting to do research. And I know that there is a lot to do. I know the research is hard. Sometimes I wonder, like, because passing exams and doing research are two very different things. So sometimes I wonder if I can just pass exams, but not apply those skills to the research. So I still haven't got there, I have a

lot to learn.

69 Weverton: Nice. And do you feel comfortable asking or answering questions in your math classes In the grad program?

70 Miriam: Mostly, Yes.

71 Weverton: Mostly yes.

72 Miriam: I guess it depends on the level of the class. There are specific examples I can think of when the class was very advanced and I felt like I would slow everyone down. If I asked anything. So then I felt a little less confident. But in general, I think when the classes at the right level, then maybe maybe I don't feel confident interrupting class, because I feel like I'm wasting everyone's else's time. But I feel confident going to the professor later and asking him for clarification.

73 Weverton: I see. Nice. All right. So let's switch gears. Let's talk a little bit about the gender issues. So before we do that, I would like to let you know about my standpoint in these issues. And What I understand as gender. So for me, gender is socially constructed. And it was a way that humans decided or invented to describe certain norms or behaviors or performance that different sexes should have in society. And having that said, I usually see it connected back to a normal of two specifically sexes, the male and the female. Now we've created two different genders to describe those two big groups. And then we call people who behave in certain ways, and have that as specifically sex as men and the other group women. Okay. All right, but I am interested about your way to think about it. So there is no right or wrong answer. It's just your opinion. And as I asked questions, you can either tell me about your experiences in the US or things that you remember from Italy, or England? Yeah, just let me know, like, where you are situating your point of view. So My first question for you is, can you tell me about your understanding of gender in the context of the American society?

74 Miriam: So iF I understand your question, you're asking, What do I think american people think about gender?

75 Weverton: Or how does gender function in the society, you understandings of this functioning?And You could also tell about Italy if you feel more comfortable or England?

76 Miriam: I mean, I feel the three of them are very similar, like the three countries have nothing there is there are slight differences in like, laws, but like, like, how, I would say, like there's a spectrum of how much freedom we give people to make certain decisions, which could vary slightly, but I feel like overall, There's like the perception is similar in the three places. I mean, I think that like, it's not an unheard of argument that it would be socially constructed. I think it's probably not what most people are, most people perceive it, I think it's also that many people haven't thought about it as much as you have. So I think that like for most people, if you're born in society that tells you that that's how things work. You don't really question that. So I would say, it's probably not as common to find people that have that point of view. I mean, I can think on top of my head, like, several friends of mine that have that idea. So it's not like, completely unheard of, But I would say it's probably not the majority of people.

77 Weverton: And What does your gender mean to you?

78 Miriam: So I'm proud of my gender like I am, I embrace it, and I'm happy how I am, which I know is a very lucky, Like, I know, I'm lucky in that sense. Like, I don't think it's like a moderate to be able to embrace it. I just think I mean, by lucky, I don't want to discriminate everyone else, there was both probably makes my life easier in this point in history. Like, I know that at this point in history, It's My position is easy for everyone to accept. So In that sense, it makes my life easier.

79 Weverton: So why do you feel proud about it?

80 Miriam: I mean, I am like, happy to be a woman. And I've never felt I've never ever felt like not happy. I mean, I felt like I a few times I felt discriminated for it. And of course, I wasn't happy with that. But then I never wished I wasn't a woman, if that And I think like being a woman gives me certain qualities that I like that I'm happy to have.

81 Weverton: Can you tell me about those qualities?

82 Miriam: I mean, I think, so. I've never read anything about this. This is just 100% my idea. But, So I don't know, like, I don't have any type of knowledge to back this up. But I think that the I think it's something about the act of being able to give life that makes women slightly more careful about it. So I feel like, I mean, I'm not saying that men care less, but like, when we think about war and violence and things and even like on a smaller scale about like. So I think that like if the world was run by women, there would be less wars in a certain way. Like, I feel like we value. Maybe we value life more. I don't know if the research has been done on that. I don't know if this is true. Just the perception I have that before sacrificing the life of a human being I think a woman thinks twice. But not to say that men don't care. But I think that sometimes men have the idea of a greater good, and maybe we don't have as much I also think we compromise more easily. So if there is a life at stake, we are Okay, maybe making maybe making an agreement first. And so maybe we would avoid the war and discuss that more easily. I don't know. Again, I have no idea if this is true. This is just something I thought about in the first because in high school that still sometimes. I also think that I forgot what it was going to say. Yeah, no, no, I like those things. I also like, I mean, I'm happy to be given the privilege of maybe one day give a life to someone like that says something cool.

83 Weverton: And you said it makes it easier to be a woman?

84 Miriam: I mean, I think, what I meant by that is that right now, For person of certain sex identifies with the opposite gender, they face challenges of being accepted in society. So I think if I identify with the opposite gender, my life would be significantly harder. I don't think I didn't mean to say that. That would be wrong. Of course, I just meant to say, When I said I'm proud, like, identify my own gender, I think that takes away a lot of struggles that nowadays people that don't have.

85 Weverton: So You see, just like being cisgender, It's the easiest path to go.

86 Miriam: I mean, I don't think it's the right path to go. I think everyone should follow what they believe is, right, [Weverton:Yeah]. But I just think that it's kind of like, I don't know, like, I am better short. And people make fun of me for that. Now, if I were 10 centimeters taller, that would not be a problem. So that would be easier. I don't I don't think it would be right. I just think it would be it would take away a problem. Yeah, I don't wish to take it away. But I just think like, not identifying my gender is not a problem I was given Not that it's I don't think it should be a problem. But I think it is a problem.

87 Weverton: Uhum,I got your point. And You said like all It's not that I never being discriminated, I did a few times can you tell me about one of the times you felt like you're being discriminated?

88 Miriam:um, So there is like, there's one example, that's the most recent that immediately comes to mind. And it is that there is a ranking of ta in this department that decides how much we get paid. And so there's five ranks. And for the four for the first four the criteria are very objective. But then from the from the fourth to the fifth, which is the second highest to the highest. This is based on teaching evaluations. But there is research saying that teaching evaluations are gender biased. And so when I read that, I was like, Great, I Am rank five, which felt good, because I was like the department appreciates my work. But also it was like, a probably had to work harder for it. So that did not feel right. And I know that gender is not the only basis for discrimination there. There are other categories that control discriminated. But in particular, as a woman, I was like, Well, someone else probably got there with less work than I had to put in there. And someone else may be missed out just because students tend to give lower levels to female instructors versus male instructors. And this is while everything I've said so far, I didn't have I didn't have any real data to practice on. This is something that I went online and looked up studies for. Because there was, I was curious, and there is apparently a lot of evidence of this.

89 Weverton: This is really interesting. So How do you feel when talking about gender with people you don't know very well?

90 Miriam: um, So For example, I'm talking about gender to you, I feel very relaxed, because I think there's an atmosphere of mutual respect, which makes this work very well. I think it's like, I wouldn't want to initiate conversation with someone that I know would not respect me for my ideas. So I think like I feel in general, I feel comfortable talking about, I want to say anything, I don't know if there are exceptions. But like, in general, if you're comfortable talking about most things, as long as there is respect. So I think it's mostly about respect and not about gender like that would change how I feel.

91 Weverton: Can you feel about a situation where you will talk about gender, if someone that it would you will probably make you comfortable, a person you don't know, well.

92 Miriam:um, So here in this library, There is a Library lounge for grad students, and sometimes this topics come up because there are a few people in the department

that are very passionate about them and tend to bring them up. And I tend not to express my opinion, because I know that they believe they are right. Which I mean, okay, I know that they believe that everyone else is wrong, like and also have believed that my ideas is Right. Like if I believe in something and believe I'm right, but I also meet the possibility that I'm wrong. Like, unless it's math, we can all approve something and agree we are right. Like in everything else. I feel like, I can be completely sure I'm right. But also, I don't have proof for that I may be wrong. And so I like to have a conversation where we both agree that someone else could have something meaningful to say, sometimes the people that bring in gender in the libre lunch aren't that open to that they just believe they have the absolute truth. And then I feel like there's no discussion there. Because there isn't anything I can say that can can help that discussion, the discussion is that to start from, because they just think they have the truth. And they're trying to tell me like, okay,

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Weverton: Can you remember a time that there was such a conversation and you felt like, I don't think is this way this person is telling me and what the person was telling there, if you like the person thought that was true. Truth about that. And [inaudible].

94 Miriam: So there are two people that like to bring up these issues, that. So The thing is that they don't even like expand on that very much, Probably because no one challenges them because no one has interest in, in starting the conversation of the type. But I feel like they just believe that there is no such thing as gender you are born with. But they presented as a fact in a way that does not allow anyone, that does not invite anyone else to have a discussion. But then there's also the opposite side, there's also people that are completely the opposite side. And I believe that you are either born male or female. And there there isn't such a thing as someone that could identify with the opposite sex. And they also kind of don't really like to talk to talk to anyone, that, I would say the people that usually bring this up in the library lunch here, are very open for conversation. And there's people on the extreme. And on both sides, I think more in the middle, Like, I don't identify with either of these extremes. Which makes it very hard for me to talk to either of them or just tend not to because I just I don't want to be confrontation of

95 Weverton: And like this gender issues that you're talking about, would that be more like about having the possibility to have more genders, or gender issues related to the mathematics department?

96 Miriam: um, So The I was thinking more about people identifying people of one sex identify with the opposite gender, We talk more about. Like, So, for example, there is an association for women in mathematics that tries to make the environment more friendly to women. So the more we will be invited to join this, This department or math department in general. So first, that's a very different type of problem. So let's say there is a problem of gender. And then there's a problem of women discrimination, which are very different. Like I would say, very different problems. And so the problem women discrimination is oppresed more because there is the association for women in mathematics. So they invite speakers and they do talks. And usually, they have a Female Speaker coming every month and just telling us her story and telling us if she has to she had to face particular challenges, and usually sharing what she thinks could be good advice for us. So that there is more open conversation there. Because I think doing the Association for women mathematics is doing a good job in keeping that conversation going.

97 Weverton: So is this association bringing women to campus to talk about the experiences as being a woman in mathematics? or to talk about the research in mathematics, Do you know like, what are they…

98 Miriam: They usually talk about, I mean, so they usually come to give a seminar just about their research. But then there is an informal chat with them, where occasionally they talk about challenges they had to face. So for example, there is this very famous mathematician that came last year who works at MIT, I think, so she has one of the top jobs in the country. And she's doing world class research. And, And so she was telling us how when she got that job, people were saying that she got it because she was a woman, and they wanted to hire a woman. And she was like I got it because my research was really good. So there, she was telling us about how that was, like a challenge she had to face because she got there and her colleagues are not trusting her. So they didn't want to like work with her. So she had to overcome that and convince them that she was worth working with. Well, they like her husband got a similar job. And he never had to convince anyone of that.

99 Weverton: Did you ever have a similar experience of things that you achieved? And people might think, oh, she did that because she's a woman?

100 Miriam: I think my Masters, like there. So I had, like my master's, which was like my fourth year of the equivalent of one here would be undergrad, we were applying for grad school. And I remember some of my classmates saying, well, it's easy for you to get in, because they would want to take at least one woman was like, okay, like, how do you even know if you're not in the like, on the admission committees? Like how do you know what their criteria are? And then it didn't happen to me directly, but the department gets a teaching award every year. And So last year, There has always been an above equal amount of men and women getting it. And so we were people started making comment that it was intentionally gender balanced, which would favor women, because there are less women. So if you make a gender

balance, but then we talked with the committee that decides on that, and it actually is not intentional in gender balance, It just works out that way. So like, people started saying, Oh, well, she got it, because she's the girl and there are not many girls, but it actually wasn't because of that, like the people that got it just earned it And their gender was not part of the of the criteria in the [inaudible] is.

101 Weverton: Interesting. And What does it mean for you to be a woman in the US society?

102 Miriam: Um, I mean, I would, I would say, I would go back to what I said about being a woman in general earlier, I think those are like, the main point for me.

103 Weverton: Okay, And What does it mean to you to be a woman doing a PhD in mathematics?

104 Miriam: Um, So I don't I mean, I think how would. So I know that there are things to be proud of doing a PhD, and we know that like, even just being admited, and having this opportunity, and then passing all of those exams that I passed, I know that their accomplishments, they're not the biggest accomplishments in the world. But I know that in my life I like was able to take those steps. I don't think that makes being a woman makes me more proud. Because I know that. I mean, I think that the worst fairness in the admission process, Honestly, like, I don't think there was any discrimination there. So I think I just was given the same as opportunity as men would have been given. So I don't I don't think that being a woman made like getting where I am significantly harder in terms of being admitted, and then passing my exams. I just think sometimes, as math PhD students here, You don't have many other women around. So that sometimes it can be like, like, for example, I was at a conference last weekend. And the number of women in the room was always about 10%. And so sometimes you feel like, do I really belong here? Because it's like, there's like two of us, maybe three of us if like, and so I think sometimes that can be intimidating. It can be intimidating to approach people because Not not like, not intimidating isn't scary. But intimidating is in your question, whether is your place. But I mean, I also know it's my place. I know that like week, There is a necessary transition phase from women not be allowed to work at all to women Have you perfect equality. So I think we're like still there. And I think that in this phase, it's, I mean, I'm not saying it's right, I think that should be, We should get to the point

where we men are encouraged to do it, as much as men are. But I also think we have to go through a phase where there's about 10% of us, and then hopefully, increase that percentage.

105 Weverton: So usually, in these conferences, do you usually stick together with other women present or?

106 Miriam: So I haven't been to a lot of conferences to say usually, but usually in class. Not really, because, well, in the [inaudible] to classes I took, I was the only one at that conference, I was the only women, woman grad student. So I was just staying with the undergrad students, because that was made more sense than staying with faculty. I think if there was another one, for example, we could have like been roommate at the hotel, because everyone else had their roommate and I was by myself. So I think that would have made a stick together more. And also like, I mean, I feel sometimes that are those things that like, you just want another woman to talk to, even if they're like very simple things, but maybe like, I think if there was another one doing what I do would probably be good friends. But there isn't one so much.

107 Weverton: All right. And so can you tell me a moment you felt frustrated about being a woman in mathematics?

108 Miriam: Oh, I mean, Probably the teaching, the ranking the TA ranking thing. Sometimes I felt lonely, like sometimes I wished I had, because inevitably, my classmates become my friends. So sometimes I wish it was easier to find the female friend.

109 Weverton: Uhum, nice. And let's talk a little bit about the department. So how do you describe the gender makeup of your department?

110 Miriam: Um, so. I think So there's definitely more women in Applied Math than pure math, which is what I'm doing. So I think the percentage isn't that low. I think actually, there is a very high percentage of women for a math department of I don't remember the numbers. So I don't want to say any number because I don't want to be wrong. But I remember someone telling me was significantly higher than in other departments in the country. It's still like less than 50%. But it's, it's not a lot less.

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Weverton: What about for faculty?

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Miriam: for faculty, it's definitely less than 50%. I've never seen the numbers there. But just thinking about who you see around, it's definitely much smaller than that.

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Weverton: How do you feel about this gender makeup?

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Miriam: So I think that we don't necessarily need to strive for perfect 50%, I think that there are certain jobs, that may just be easier for men to do. And I don't think that the goal should be to have exactly 5050. So for example, if you want to have career in academia, that could be harder to like that could make it harder to have many children, for example, like just because it's hard to take time off, and then go back to your research. And everyone says that it's not impossible. There's lots of people that have done this. But I also understand that people, women may want to make a different choice. And I don't think it's the wrong choice. I think that women should be given the chance to have children and have a career in academia, if they want to, I just don't, I just can see the number of women being a little lower if women decides not to. I just think that nowadays, like the Sometimes they're not given the chance, for example, the friend I mentioned yesterday, and I feel okay talking about this, because I didn't say her name, but definitely what she could matter. And she was approached by faculty telling her Yeah, but you're not also having children now, right? Because then we need to stop doing research together. I feel like that's wrong. Like that's something that should not happen. But women should be free to choose to have children if she wants to. But I also think that if she wants to do another job, because it makes her life easier, that that also choice, I just wish that all any choice that woman makes was respected for what it is. So I think that if the number is a little less than 50%, because a woman chooses a different career path that makes her family life easier. That's great. I don't think that's a problem. And just so like, I don't think we should strive for 50%. But

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Weverton: Interesting. And, would you say that I think that you alread talked a little bit about it. Like, would you say that this gender makeup is typical, typical across different departments in the country?

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Miriam: So I think it's, I mean, I think it's more common scientific subjects for some reason. But I think, like, around faculty, I think it's more common for the reason I

was saying for the third reason that the family will interfere more with career path in as a researcher.

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Miriam: And So this question, it's, it's interesting. What are the things that you think people from different gender than yours will be surprised to know about your experience as a math PhD student?

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Miriam: I think Sometimes, like, men don't realize, like, Like, for example, with the teaching with men, [inaudible] guys in this department being ensured that the teaching the teaching awards for gender balanced, I think they don't realize that that can come off as offensive. Like, I think when they tell you, it's easy for you, they don't mean to, to say you're not worth as much they just mean state of fact, and then you can take that back to the fancy setting. Sometimes there are certain things that they're just put out there that could come off as offensive and people the opposite gender, maybe don't realize.

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Weverton: I like your example. do you have any other example that you can think about?

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Miriam: Um, I mean, there's the example of admission that was said, Oh, would be easier for you to get in. But There is the example of the mathematician that came last year and gave a talk and told us when I got my job at MIT. They told me I got there just because there was a woman. So I think that maybe the people that said that didn't mean to say that she wasn't good mathematician, maybe this meant to say that fact. But then that fact came off as very offensive.

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Weverton: I see. And Who do you think, are the mathematically strongest people in the department?

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Miriam: Um, So I mean, this department has some really good researchers among the faculty. So I, I kind of only know people in my area and they are old men. So It's like, there isn't any women, so it's hard to make the comparison. There are some really brilliant women in algebraic geometry in other departments, but yeah, they aren't that many.

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Weverton: And Why do you think they are seen this way, like the people that you're thinking about in your department?

124 Miriam: I mean, I think that they have like, the it's like the quality and quantity of publications. So they have very good paper that have been influenced research and like that have changed the course of how people think about certain ideas. And also they have several of them. So

125 Weverton: nice. And What would you do to improve women's experience in the math department?

126 Miriam: I Think this department is doing a good job being inclusive. I think that I've talked to other people that identify as other minorities as well, that feel like the department is doing a good job being accepting. All of this, I think they're like, definitely the the TA ranking, deciding or paid, that could be changed, I would make women feel better. It's not in my own interest, because I am the top ranks I don't I kind of don't want to be pushed down. But I also think that that could do and it's not the best. I mean, other than that, like, it's hard to say we should take more women because I don't we don't want them We don't want it to be actually easier for women to get in. Like I don't want what my classmates were saying to be true. Because I would never want to get a job in front of a man just because I'm a woman if he's more qualified, I think that already doing well with admission like I think I mean, I don't I've never taken part in that process. But So I don't know exactly what career they use. But I know that they're not biased, like I trust that they're doing a good job not being biased. But I also think we shouldn't be biased in the opposite way. Which we could attract more women like given examples. So like, telling, telling younger girls like in high school and college stories of female scientists, so they don't feel like it's a career path that's close to them. So Yeah, that that may be could be something like inspiring women giving them examples.

127 Weverton: And What do you think works well for women in the math department?

128 Miriam: I mean, I think we get equal treatment, like, I've never, I never felt like we were treated differently or that differently. So.

129 Weverton: Interesting. And can you tell me about a faculty member in your PhD program who contributed to your academic success?

130 Miriam: Um, So, I mean, there's of course, my advisor, But then there's also a couple of professors I took classes from And there's one that was neither of the two. But I just contacted him when I was applying just to us for information. And he

gave me really good advice after that.

131 Weverton: What kind of advice?

132 Miriam: just in terms of what classes to take and what to work with? And in terms of advisor, I see, and what advice would you give to a woman who is trying to who is trying to pursue a PhD in mathematics?

133 Miriam: Um, So I think there's the general advice that we talked about yesterday that would give to everyone in those courses [inaudible]. I think my experience when I was starting was that people would tell me not to. And normally, I complained about this to my male friends from my masters, and no one told them not to, so them I was like why are people telling me not to? So tell her not to listen to them if that's what she wants to do? Because In the end, it's her choice and she should do what makes her happy.

134 Weverton: All right. We are done. [more not important conversation after this].