# Straight from the student's mouth: ten freshman women reflect on their difficulties with mathematics

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The students at Trinity University, an all women's college in Washington, DC, come largely from low-income households and are often the first in their family to attend college. Upon being admitted to Trinity, many students say they will need extra help in mathematics. It is therefore not surprising that 65% of the freshman class place into a developmental math course their first semester of college. Ten students who found success in this course were invited to share their experience via filmed interviews. The result is an enlightening 25-minute film that takes viewers inside the minds of first-year students and shows the world of mathematics from their perspective. These young women, who have struggled with math all their lives, are relaxed and candid as they speak truth to the camera. Topics covered by the students include college readiness, personal math history, motivation sources, preferred teaching styles, common stumbling blocks, confidence attainment, and outlook towards future math courses.

#### Introduction

In twenty years of teaching developmental mathematics to adults, I have become acutely aware of the important role that confidence plays in an adult's ability to learn. I also know, from my own experience as an engineering major in college, that success breeds success. When I was in college, if I did well on the first test in a course, I was instantly motivated to work hard and try to repeat that level of success on the next test. When I did poorly on the first test, however, my motivation dropped or stayed where it was when I first leafed through the textbook. The low grade would be an affirmation of my intimidation by the material. If this loss of motivation could happen to me, someone with only positive experiences in mathematics growing up, it must occur with higher intensity to students with a history of negative math experiences.

Through casual conversations with my students over the years I heard anecdotally that my suppositions were true. Students who had success in my classes spoke enthusiastically about their increased level of confidence and the impact this had on their outlook towards mathematics. I thought how helpful it would be to relay these success stories to future students who found themselves in the same position. I tried telling the stories myself, but found my words were just blending in with all the noise of the course. The words needed to come from the source. I needed to find a way to get my former students to relay their personal success stories directly to my current students.

At around this time, my husband bought a digital movie camera. My two teen-aged daughters quickly became proficient in the use of the camera and in making movies

using *iMovie* editing software. I was amazed at how professional the movies looked and assumed I had two geniuses on my hands. Then I made a home movie using the same tools and realized how simple the process was. I thought about connecting these new movie-making tools with my students' success stories. Using my family movie camera and my laptop, I could bring their stories into the classroom and the words would come straight from the students' mouths.

# Methodology

The students who appear in this movie were my students during the Fall 2008 semester. Each fall, I teach four sections of *Math 101: Introductory Algebra* to first-year students who do not meet our cut scores for college-level math. The students who are placed into this course are unable to demonstrate mastery of the basic mathematics topics covered in high school. Therefore, *Math 101* covers fractions, decimals, signed numbers, inequalities, order of operations, exponents, roots, algebraic expressions, algebraic equations, ratios, proportions, percentages, data analysis, the rectangular coordinate system, and graphing linear equations and inequalities. In order to move on to college-level mathematics, students must demonstrate mastery of these skills via a minimum grade of 72% in the course.

At the end of the Fall 2008 semester, I told my students that I planned to make a movie about student math attitudes. I circulated a sign-up sheet in each of my classes to find out if anyone was willing to be interviewed for the movie. Twenty-two students signed the list. In the spring of 2009, I contacted the students via email and began scheduling the interviews. Trinity's Office of Development supplied photo release forms for each student to sign prior to filming. I explained the purpose of the form to each student and kept copies on file in my office.

All of the movie-making equipment was my own personal property (a Sony HD digital movie camera, tripod, MacBook computer, iMovie editing software, and a Lavalier microphone). Each student was asked a total of thirty questions, while the camera ran continuously. I sat directly behind the camera so the students could look at me as they answered the questions.

The interviews required 30-40 minutes of a student's time. No compensation was given to the students other than a DVD copy of the finished movie project. This particular movie project used footage from ten of twenty-two filmed interviews. Footage from the other interviews is now archived for use in future math documentaries.

## **Findings**

This is the second movie I've made about mathematics. Each time I go through the filming process, I am amazed at how eloquent the students are. They speak to the camera with ease and appear to be relaxed as they do so. This may be because that the students self-selected to be in the movie: self-conscious or camera-shy students probably would not sign up to be in a movie. Another possible reason for the relaxed nature of the interviews is the fact that the students are speaking directly to me, someone who they know and feel comfortable with. Whatever the reason, the answers are amazingly candid. I am always touched by the good-faith effort each student makes to answer the questions fully.

When asked about the effect of having their first graded math test returned to them, several students who had received a good grade remembered the moment well and described it as a turning point in their math history. Others spoke of how surprised they were to get a good grade on a math test, some for the first time in their lives. They remarked that this achievement gave them the confidence and motivation to do well, not only on their next math test, but also in their other classes. My personal theory about success breeding success was borne out in these responses.

When prompted, students had no trouble listing and elaborating on the characteristics of a bad math teacher. Impatience, lack of enthusiasm, inability to explain things in more than one way, failure to use layman's terms, and refusal to spend extra time on topics were all cited as characteristics. The ease with which these characteristics were described showed how well acquainted the students were with ineffective math teachers prior to college.

When asked about the qualities of a good math teacher, compassion emerged as a common theme. One student described a good math teacher as, "someone who wants to help, who cares." Another said, "a professor who cares that her students get the material." And finally, a quiet, unassuming student stated the obvious: "It's important for the teacher to care, or the student is not going to care either."

One of the most moving responses came from a student who had started my course with a debilitating fear of math and who had ended up with the highest grade in her class. She described her feelings after receiving her first A on a math test as follows:

I hadn't seen an A on my <u>first</u> math test since elementary school... I'm not going to even lie. That opened my eyes up like, "Wow... you really understand what you're doing! It's not you. It's not that you don't know and you don't know how to figure it out. You can really... you can really <u>do math</u>." So, that made me more open to try to figure out, what <u>else</u> can I do? What else can I succeed at?

This smart young woman clearly felt duped by her grade school teachers, and I couldn't blame her. Realizing she had been misled regarding her math ability, she now wondered what else she had been misled about in life.

#### **Discussion**

There were many commonalities between student responses in this video survey. All ten women admitted to being very worried about taking their first math course in college and all admitted to being nervous on the first day of class. Each woman, at some point in the interview, alluded to former math instructors whom they felt had abandoned or misled them, thereby leaving them with a tainted view of mathematics. These responses validate Cynthia Arem's definition of math anxiety as, "a clear-cut, negative, mental, emotional, and/or physical reaction to mathematical thought processes and problem solving. It is often caused by negative experiences with math in childhood or early adolescence" (Arem, 1993, p.1).

Another common theme that emerged from the movie regards the pace of instruction in a mathematics classroom. Stefonie described a good math teacher as someone who would, "not rush through just to get the lesson taught or just to get to the next chapter, but actually sit down, take the time and make sure everyone understands what is

going on". Marjorie described a bad teacher as, "a person who just goes in there and talk, talks. They don't create the atmosphere of, 'Did you understand?" And Carolette said, "I wouldn't want a professor who continued to add information on you and you know that we're not getting what you just taught us last week."

By criticizing math teachers for being more interested in checking off required curriculum objectives than in making sure their students understand the objectives, the students became walking advertisements for constructivist teaching methods over traditional behaviorist methods. In her book, *Unlatching the Gate: Helping Adult Students Learn Mathematics*, Kathy Safford-Ramus describes her own shift from traditional to constructivist teaching methodology as follows:

These days I work slowly through the subject matter that lays the foundation for the core of the course. In addition to correcting misconceptions and filling in the knowledge "cracks," this allows time for students to get to know each other and me. An atmosphere of openness is established while they are still on quasi-comfortable ground. Time is gained later when topics do not have to be re-taught because students never owned them (Safford-Ramus, 2008, p. 140).

This has been my experience as well. Over the years, I have learned that breezing through the early topics in Math 101 is an exercise in futility. No topic is safe to delete or skim over. As Shari said so succinctly in the film of the students in Math 101, "They're in there for a reason... they don't know the material that's in Math 101."

In 1998, Daniel C. Pratt and Associates surveyed 253 adult educators on what it means, "to teach". The results of the survey, published in *Five Perspectives on Teaching in Adult and Higher Education* (Pratt, 1998), list the emerging perspectives as transmission, apprenticeship, developmental, nurturing and social reform. The young women in this movie definitely would agree with the importance of the nurturing perspective, as evidenced by their commonly held view that good math teachers care about how their students are doing. Carolette partially attributed her success in Math 101 to her professor's nurturing qualities:

I have had the best professor in Math 101. I had a professor who cared that her students got the material, got what we were covering. It wasn't about, 'We need to move on, we're falling behind', that kind of thing. Our professor didn't move on until she knew that we understood the concepts. I had a professor who was willing to work with me, who gave me activity sheets for things I was having trouble with, like fractions and converting decimals and that kind of stuff. I got worksheets. I was told, 'I have office hours. Do you need to come see me?' I had a professor who showed more concern for me, that I received the information, that I was able to grasp the concepts versus, 'This is what I'm going to teach this week.' So, I had a professor who cared.

Since I am the professor Carolette is speaking of, these words are like poetry to my ears. Twenty years ago, transitioning from a career in engineering to a career in teaching, I imagined the rewards of teaching developmental mathematics to adult learners. Since then, the rewards have become tangible, and I appreciate them every day.

#### **Conclusion**

I now show this movie to students at the beginning of each semester to let them see they are not alone in their fear of mathematics. Other teachers have shown the movie in their courses and have remarked on its effectiveness in improving student attitudes. As I continue to get positive feedback from students and teachers regarding the movie, I have become convinced that this is an idea worth sharing with the developmental mathematics community at large.

The comments made by students in the film not only reflect the feelings of Trinity students but of every student who has a history of bad experiences in mathematics. Too many adults feel separated from the world of numbers despite having the ability to appreciate that world. My theories on the crucial ingredient of self-confidence have been validated over and over again in my classrooms. Until adult learners see some shred of evidence that they can indeed "do math", they will continue to view themselves as unteachable. By watching and listening to their peers describe newfound success in math, students become inspired and confident that they too can have success in math. Inspiration and confidence are often all that they lack.

#### References

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Pratt, D.D., and Associates. (1998). Five Perspectives on Teaching in Adult and Higher Education, Krieger Publishing, Malabar, FL.

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# Appendix A - Acquiring confidence in the mathematics classroom: a student perspective

#### Why do you think so many people struggle with math?

Chyna: I don't know. I think that it's not easy. I think that kind of turns people off. I know it turns me off. For me, reading is easy. You just read it and you get it. But with math, you have to think, and put numbers in, so I think it's just not easy.

Shameka: I actually think people struggle with math because they aren't able to communicate with their teachers or they might have had bad experiences in the past that interfere with them learning math now. And math is a hard subject in general. You have to know the basic steps. It's like a sequence of order. Once you learn something you have to continue to progress and get better.

Carolette: It's scary actually, to me. So many numbers... and then the formulas; the numbers, the formulas, the formats. Some people, like myself, don't think systematically. It's hard for me to think in terms of numbers. Sometimes when I actually look at numbers it give me a little bit of anxiety. It's hard for me to systematically formalize an answer.

#### Describe your confidence level in math before college.

Marjorie: If we rank it from 1 to 10, one being the lowest, ten being the highest, I would say a two. It was very bad because I said, 'Oh my God, I have to take math again?" I was very afraid and I was trying to avoid math all the time... all the time.

Carolette: For me, math and science are the hardest subjects. I'm a junior now and I waited until I could not wait any longer for me to take my math classes. My confidence level is higher now that I know that I can do it. But before coming to Trinity I wanted to put math off as long as possible because I wasn't confident that I could do it... that I could learn it, retain it. You know, just do a problem, or do an equation.

Stefonie: I felt confident because I said to myself, 'I did good in high school. I passed it. They sent me on, so I must be doing something right here.' But once I got here my confidence slowly shifted because that's when I realized it wasn't right. I should've been taking this type of math and getting prepared. And once I took the math placement test to come to Trinity, that's when I realized I wasn't ready for college status math.

#### Do you think Math 101 was the correct course for you?

Shari: Yes, I definitely think it was the right course for me to start with because I would've been so behind. Now, in Math 109, you have to be able to convert things from fractions to percents to decimals and I would've been so lost. I would've been so embarrassed to ask someone, 'How do you convert from a fraction to a decimal?' I would've felt so stupid.

Tiffany: Oh, absolutely. And it was very necessary because transitioning into Math 109, when it came to percents, decimals, scientific notation... it's almost like you build yourself with this skill and now you are at liberty to use it. You're at liberty to use it in life. Like you can say, 'What other math way can I use? I can do this long answer, but I can also use scientific notation.'

Marjorie: Yes, it was, absolutely. Because everything that was in that course was everything I had gone through in high school, and probably some middle school. Everything was refreshed in a different way and these are the basics that you need. So then you can learn for other courses and then you remember. Some students might think, 'Oh no, its not fair, because I am in college already.' But no, you have to learn. I did and I am very glad I did. I didn't feel like I wasted my time or anything.

Carolette: I don't remember my SAT scores but I know that I needed to come in on the basic level and Math 101 is exactly where I needed to start at.

### How did you feel on your first day of class in Math 101?

Nargis: Oh, I was nervous. I was nervous because it was college, number one, and then I was in a math class. So, it was my first day and I was nervous overall because it was studying math and I didn't know how intense it was going to be, and it was college, so I was definitely really, really nervous.

Ionie: My first day of math class here at Trinity I felt, 'Ok, here's another session of boring math', so I wasn't looking forward to it, but I knew I had to do it because it was really critical and crucial to my major. So I said, 'Ok, I'm going to go in here and do what we can do, but I'm not expecting any surprises.'

Sajay: I was nervous. I was really, really nervous because I was thinking, 'What am I going to learn? I already don't like math and don't remember a lot of stuff so my grades are probably going to be very low in this class.' So, I was sort-of putting myself down below the other students.

Marjorie: I was very confused and at the same time, very nervous. I was thinking, 'Oh, here it goes again.' It's just this emotion you create where you're nervous automatically. I remember just sitting there and saying, 'Ok, I have to pay attention. I have to do well.'

Carolette: On my first day, because I knew I had trouble with math, and I knew that I had failed before, I had to come in with my mind ready. I had to come in motivated. I came in motivated from day one. In the bookstore, they had a laminated algebra printout with the different expressions on it and I even made sure I had that. I was ready... I was ready.

#### Describe how you felt after seeing your first graded test.

Nargis: It kind-of made me nervous and happy at the same time. While I was really happy I did ok, I was thinking, 'Oh gosh, I'm going to have to keep this up, and how can I keep doing this and keep getting these grades?' So, it kind of put pressure on me in that sense, I felt.

Marjorie: When I got the test back I felt that I was doing well so then I wanted to keep promoting this feeling because I felt, 'I'm learning. This is good.' So, I wanted to keep on doing it, and doing it, and doing it, and not just only for that math class but then you want to do the same for other classes. So, it made me feel so excited, thrilled... I have no words to say, 'Wow I am doing well in this one class that I thought I would never do well in.'

Ionie: I got an A on my first test, so that was really good!

Shari: It made me feel really good. I was so happy to call my dad and my grandma, and I was like, 'I got an A on my first math test!' And they were like, 'That's good! Keep up the good work.' When you get good grades it motivates you to work harder, because it makes you think, 'Well, I can do it and I like this feeling of accomplishing stuff and getting good grades.'

Tiffany: On my first four tests? (laughing) Oh, my confidence went like, through the roof... through the roof.

Carolette: Now, I don't want to toot my own horn (laughing), but on my first test, I got a good grade. I think it was either an A or a B, somewhere around there. But I don't think that I've ever seen and A or a B in math, in my long years. I studied for the test, I did the homework that was required for that particular section, I asked questions in class, so I was ready for it. I did what I needed to do to prepare for the test, I got a good grade, and that motivated me.

#### Why do you think so many students fail Math 101?

Shari: Honestly, the only way you can fail Math 101 is if you don't do the homework, don't show up to class... I honestly don't know how people fail Math 101. I don't get it at all. I mean, if they don't show up to class and they don't do the homework, they're going to fail the tests because they're in there for a reason.

Sajay: Some students have a mindset that they've already learned the material... so, when they come into Math 101 they have it in their brains that, 'I already know the

process and the steps that I have to take.' Or, 'I don't need to learn this over again.' So they kind-of put themselves back instead of taking the initiative to learn what the teacher has to teach. Because, the information that the teacher is giving you is steps to go onto the next math class and it helps you along the way.

Marjorie: Wow, that's a hard one... why? I don't think there is a reason as to why. Probably their lack of determination, their lack of interest. Because I can not see a person missing class or wasting their time, their money or, in some students' cases, their parents' time or their parents' money, and come and fail this course.

Tiffany: If you lose your confidence in the first two weeks, then everything else is Greek to you, all up until your final. You know, and loss of confidence is just like... well you know how that is. But, I don't miss math, chill. No way, no way.

Nargis: They underestimate their own abilities. So much so that it kind-of prevents them from even being able to do well. Because, you're so focused on, 'I can't do this... I can't do this... I can't understand this,' that it takes from your concentration of actually trying to get the information. I think, once you get the nerves out of the way, you're one hundred percent capable of focusing your attention on the math itself. That is probably the main reason on exams and tests, and in general, why people do worse in the longer run because they just focus so much on what they don't understand and think that it's going to be the end of the world. They think, 'I don't understand this one concept so I'm not going to pass the course.'

Shameka: It's not because they just can't pass it. It's because they're just not focused and something is distracting them from learning what they want to learn.

Carolette: I watched some people not pay attention and I watched some students not coming to certain classes. At the beginning of the semester, it felt like a team effort at first with the class because I knew how much I needed to learn this stuff. Then, as the semester went on, I remember there was one girl who stopped coming. But, I noticed before she stopped coming, I noticed she got a defeat attitude. Maybe she wasn't picking up stuff from day one, day two, so that maybe by the fourth or fifth class, she stopped coming, and I saw that happening. Then, too, I was in a class of ladies who had failed Math 101 prior and there was one funny thing. They said, 'I'm going to look at my old test because I have the old test.' And in my head, I'm like, 'If you failed it then by your old test, what makes you think you're going to pass it now?' So, I don't know but I think how people fail is... you can't not do the work. In this class, and with math period, you can't not do the work. You have to do the problems over and over, different variations. You have to do the work.

#### What are some qualities of a "bad" math teacher?

Shameka: When you feel like you aren't comfortable and can't communicate with that teacher, of if the teacher isn't being very responsive to the questions that you ask. Like if they give you short brief answers to your questions that wouldn't help you at all. Also when they are giving you a type of vibe like you can't do the problems that are given, period. I think that's a bad teacher.

Chyna: A teacher who doesn't accommodate each student, and a teacher who expects you to get it the first time, especially if you're struggling with math.

Tiffany: First of all, someone who doesn't lay down the layman's terms, point blank. That's what it comes down to. Don't try to trip us up with terms and what not. Like, we get it... you're the educator. Congrats... you're here to teach us. It's not a

competition like, 'This is what I can show you, this is what I'm good at.' It's not a competition. It could be amongst students, as long as it's healthy. But, you can't make it a competition between the educators and the pupils.

Marjorie: When I get a bad teacher or a bad professor, it's a person who just goes in there and talk, talk, talks. They don't create the atmosphere of, 'Did you understand?' Sometimes students are going to say, 'Yes, we did', just to get out of there.

Carolette: I would not want to have a professor who is more concerned about, what do they call it... curriculum? More concerned about, 'This week, we're going to talk about this, next week we're going to talk about that', if you know that your students aren't ready. If you're going to keep piling information on me and I'm not ready, I don't get it, then I would have to drop it because I know I'm not going to do good. And then, once I fall behind, I'm not going to catch up. So I wouldn't want a professor who continued to add information on you and you know that we're not getting what you just taught us last week. Can we work on this a little bit longer? That kind of thing.

Stefonie: I would say a teacher that lacks confidence and enthusiasm. I guess that's for any teacher, but I mean, if I see you and you're trying to teach me something that I don't understand and you're standing in front of me and you barely understand it, or you look a little shaky, I'm not going to take what you're saying serious. I'm like, 'How's she going to teach me if she doesn't know what she's doing herself?' I mean I think a math teacher, since that's a difficult subject for many people, I think a math teacher should be confident, she should be interacting with the students, she should take her time, slow down, be willing to explain... basically patience is what she needs.

#### What are some qualities of a "good" math teacher?

Chyna: Someone that offers help, explains things, knows how to explain things in more than one way, and doesn't mind going over the same thing, over and over and over; someone who wants to help, who cares.

Shari: Someone who provides lots of examples for the students and provides answers to questions. Someone who has a friendly personality, who makes the class interesting. I mean you don't want to sit in a class and just do straight, straight work through the whole hour and fifteen minutes. I mean its fun to have a professor who will talk to you in between problems and get you to laugh, and just communicate with their students.

Carolette: I have had the best professor in Math 101. I had a professor who cared that her students got the material, got what we were covering. It wasn't about, 'We need to move on, we're falling behind', that kind of thing. Our professor didn't move on until she knew that we understood the concepts. I had a professor who was willing to work with me, who gave me activity sheets for things I was having trouble with, like fractions and converting decimals and that kind of stuff. I got worksheets. I was told, 'I have office hours. Do you need to come see me?' I had a professor who showed more concern for me, that I received the information, that I was able to grasp the concepts versus, 'This is what I'm going to teach this week.' So, I had a professor who cared.

Tiffany: I guess first it's important to understand the audience. And, if you have a sea of material, find out what you feel is significant. Don't focus so much on fancy jargon. You know, bring it down to a layman's terms, bring it down to real world

examples and then you're able to apply it. Because then it's like, 'Finally, I know how this applies!' I hear people all the time saying, 'What does this have to do with anything?' and I'm like, 'Are you serious? If you plan on living the rest of your life and not having someone cheat you, or not having your house fall on you if you design it... get it right."

Stefonie: To me, I think the characteristics of a good math teacher would be someone who is just willing to take the time and just help out; not to rush through just to get the lesson taught or just to get to the next chapter, but actually sit down, take the time and make sure everyone understands what is going on instead of just some people. The whole class needs to be able to raise their hand and say, 'Yes, I know what I'm doing,' instead of moving on because just a few people understand.

Sajay: It's important for the teacher to care, or else the student is not going to care either.

#### Did your success in Math 101 affect any other parts of your life?

Nargis: Honestly, I think that it helped me, not only in my math courses but also in all of my courses because it was pretty much the same pattern of studying. In that way, I had a formula of going into the class, trying to figure out what was being taught, and then translating it back to how I best understood it. Then, I kind-of spit it back out in the assignments. But, my success in Math 101, it did help me out a lot in my next math course because, I went into Math 101 thinking, 'Oh my God, how am I going to get through this math course?' and that's the same exact thought I had coming into my second math course. So I thought, 'You know what? You did it then, you can do it now.'

Carolette: Math 101. See, it goes beyond how it affected me in my classes. By me passing math, and by me doing good in math, it gave me confidence in every area of my life, because I was defeated. I had a mindset that, 'I'm not going to do good; I hope that I can just barely pass and make it through.' But when I started getting in there and opening up my book and finding out what was going on, I felt that I could pass Math 101. But it gave me confidence and it gave me courage, not just to do good in my other classes because I always did good in my other classes, but it's the math, you know. But it affected so many areas of my life by me being able to do it.

Ionie: I hadn't seen an A on my <u>first</u> math test since elementary school... I'm not going to even lie. That opened my eyes up like, 'Wow... you really understand what you're doing! It's not you. It's not that you don't know and you don't know how to figure it out. You can really... you can really <u>do math</u>.' So, that made me more open to try to figure out, what <u>else</u> can I do? What else can I succeed at? So, that helped me a lot.

#### What is your view of mathematics now?

Shari: My relationship with math now - it's a little better... better than when I started. I can definitely tell there's an improvement, and that's what I want, whether it's a small improvement or a big improvement. As long as improvement is happening, that's all that really matters.

Sajay: I'm not afraid to try a problem because, what I realize is that it's just words and how you understand it. So, I'm not intimidated by math problems anymore.

Marjorie: I'm excited. I'm happy. I like it. I love it. I'm not afraid of it anymore. And, of course, there will be things like, 'Oh my gosh, what is this?', but I am very

confident. And, like I shared before, I am now thinking of getting a minor in math. People say to me, 'How would you use that?' and I say, 'Not necessarily in anything, but it would make me smarter and its just <u>fun</u>... you're learning all these things.'

Nargis: I approach mathematics with a lot more confidence and a lot more understanding than when I first came in, just because I'm not as anxious. When I come up against a problem that I don't understand or a concept that I don't understand, I don't immediately go into, 'Oh, my gosh! See. This is another example of how not good in math I am. Instead of going into that, I simply tell myself, 'I don't understand this, but I'm going to go through the steps and I'm going to learn it, based on how I best learn. And, I'm going to get it.'

Carolette: I'm looking forward to taking higher-level math, if I have the right professor and if I get clear instruction. I don't know who I'm going to get, or when I can take the next class, but I know there are certain things that are going to contribute to me doing good in math. And one of them is to have a good professor who gives clear instruction; who is willing to work with me, because I do need the help. So, I'm looking forward to taking the next level because I want to go higher.

Ionie: My view of mathematics now, I'm going to be honest and I'm not saying this because it's a taping but I love it. I'm being honest... I love it. And, I never thought this would happen but I'm tutoring someone right now in college algebra. You know you've really learned something when you can teach it. And just to be able to see the person that I'm tutoring (which is another young lady who was going through the same thing I was going through), to see her go from an E to a B on a quiz is amazing because it's an accomplishment. I think that it's every teacher's goal to actually take out that time and help someone. That's the best feeling ever to me. I love it because I can show somebody else how to do it.

#### Complete the sentence, "Math is..."

Carolette: *Math is a challenge*.

Tiffany: Math is priceless. Knowing it is priceless.

Shari: Math is sweet sometimes, but most of the time it's pretty sour.

Marjorie: Math is the best thing that ever happened to me. I love it.

Sajay: *Math is awesome!* 

Chyna: *Math is not hard, but math is complicated.* 

Stefonie: Math is not for me.

Ionie: *Math is the future... my future.*