

# Tutoring in Homework Help: Mathematics

**TEACHER:** All right, guys. Make sure you take out your homework. Have a seat. Good afternoon. **TEACHER:** My name is Brandy Tyler-McIntosh. I teach at Bond Elementary School here in Tallahassee, Florida. I teach fourth-grade math to all the students in fourth grade, and I teach a fifth-grade math class to a third of the students in fifth grade.

TYLER-McINTOSH: This is how it's going down today. We're going to start off with our homework assignments... broken into groups. I want fifth grade on this side, I want fourth grade on this side...

TYLER-McINTOSH: After-school is not as formal as my regular classroom is. You know, I tell my kids all the time, it does not matter to me if you're swinging from the ceiling as long as you get the answer. And at after-school, sometimes we are literally swinging from the ceiling. You know, or we're outside doing something. You know, or we're running around the school. But it just enables us to have that connection between school and after-school. Because I'm the teacher that teaches during school, I'm able to, you know, roll everything over into after-school to ensure that the kids are successful.

TYLER-McINTOSH: You've got the first 15 minutes to go over your [accounting homework](#). The next 15 minutes, we will go to the Promethean Board and we will work on coordinate pairs like we did yesterday and the four quadrants. You remember that-- yes. A structured homework time is critical to student achievement because it enables the kids not only to work on time management, study skills and all those other things, but to have access to everything that they need.

TYLER-McINTOSH: I'm coming, I'm coming. And what do you do first?

STUDENT: Multiply.

TYLER-McINTOSH: Multiply what?

STUDENT: Six times six.

TYLER-McINTOSH: Which is what?

STUDENT: Thirty-six.

TYLER-McINTOSH: Okay. So write your 36 down here... times your last six. You multiply that and you come up with six cubed, or six to the third power, here.

STUDENT: Miss Mac, she helps me more with my math because if I can't understand it, she breaks it down into steps for me and I can really understand it then.

STUDENT: I don't understand.

TYLER-McINTOSH: Okay, what is this called?

STUDENT: This? TYLER-McINTOSH: Yes.

STUDENT: Square foot... Root. Square root.

TYLER-McINTOSH: You sure? It's not your foot, you sure? Okay, this is square root. Guys, when we talked about square roots today, what did we say?

CHAKILAH: The four is the base and the two is the expan...

TYLER-McINTOSH: Exponent.

CHAKILAH: Exponent.

TYLER-McINTOSH: Now, that is doing squares, exponents. We're talking about square roots. You remember this little icon that I put on the board? This. Right?

CHAKILAH: Yes.

TYLER-McINTOSH: Right. Now, we talked about square roots and perfect squares. Remember you had to learn your perfect squares? One times one and two times two. This will be what, Brian? BRIAN: Two to the second power.

TYLER-McINTOSH: This would be two to the second power. So this is a perfect square. So what would the square root of four be?

STUDENT: Two.

TYLER-McINTOSH: Two. Because two times two is...

STUDENTS: Four.

TYLER-McINTOSH: Now, the problem you're working on is the square root of what?

STUDENTS: One hundred.

TYLER-McINTOSH: One hundred. What would it be?

STUDENTS: Ten to the second.

TYLER-McINTOSH: It would be ten to the second power. Why?

STUDENTS: Because ten times ten is a hundred.

TYLER-McINTOSH: Bam.

TYLER-McINTOSH: After that, I do whole group instruction, and it can be on anything across the board. It just depends on what I'm teaching at the time.

TYLER-McINTOSH: Okay, what are the characteristics of quadrant one?

STUDENTS: All positive.

TYLER-McINTOSH: All positive.

TYLER-McINTOSH: So, what I was going over with them was the coordinate grids. My fourth graders know how to do coordinate grids, but they didn't know how to do it with the four quadrants.

TYLER-McINTOSH: What are the coordinates of D? Who can tell me? Go ahead, Brian. BRIAN: Positive two and positive four.

TYLER-McINTOSH: And we're doing D. Come move it and see. Very good, Brian. Thank you. What are the coordinates of E? Chakilah.

CHAKILAH: Positive five and positive... zero. Zero.

TYLER-McINTOSH: Positive zero?

CHAKILAH: No, not positive zero, just zero.

TYLER-McINTOSH: It's zero. Come see.

TYLER-McINTOSH: The lesson that I taught today was one that would help prepare them for fifth grade, my fourth graders, and give my fifth graders a review. So that's why I chose that lesson today.

TYLER-McINTOSH: Move it in. Let's see. Very good-- zero and five. All right, who's plotting?

STUDENTS: Me...

TYLER-McINTOSH: I have to give you a short one. (kids giggling) Do you see it? What is it? STUDENT: Positive two and positive three.

TYLER-McINTOSH: Okay, go for it.

STUDENT: Positive two, positive three. Don't rush me. (kids giggle) TYLER-McINTOSH: Uh-uh. You go X... STUDENT: Ooh! Oh, I forgot.

TYLER-McINTOSH: ...Y. Okay, great. Right now we're going to break into our groups. Fifth grade, continue on your homework. Fourth grade, this side. You can grab laptops. TYLER-McINTOSH: And after that, that's when I'll pull a small group. Some of the kids get laptops, some of the kids at the Promethean Board, some of the kids are still working on their [personal finance assignment](#) if they need to. STUDENT: Oh! TYLER-McINTOSH: When they break into small groups, some of the students are able to get laptops. Today they were working on something called Study Island.

TYLER-McINTOSH: Are you on the network? You're in. Are you on the network?

TYLER-McINTOSH: The way the program is designed, it touches in on all of the skills that the kids need to master their grade level. They have their own tutorials to work on and it has prescriptions on it. In the event that they didn't master a certain skill, they can go back and get a review of it and then be assessed on it. And the kids love it, because it's kid-friendly.

STUDENT: Stop sign right here.

TEACHER: Why a stop sign?

STUDENT: Because no stop sign in the row.

TYLER-McINTOSH: They were working on the shape sudoku. I love that game. Sometimes I give them the numbers, but I find that the shapes are easier for the kids to manipulate, because they see colors and not just these black numbers one through nine. And, you know, everybody knows how to play sudoku. It's critical thinking, it's analyzing. It's all of those things that are abstract to me, and they love it.

STUDENT: Give us a hard one, Miss Mac.

TYLER-McINTOSH: Oh, you want a hard one?

STUDENTS: Yes, we do.

TYLER-McINTOSH: Whatever you are solving, numerical expressions or any long problems where you have to do order of operations, always remember: P-E-M-D-A-S. With that in mind, you'll always know, "Okay, I have to remember PEMDAS. I have to do this in that order."

CHAKILAH: You use PEMDAS, which means, "Please excuse my dear Aunt Shay Shay."

TYLER-McINTOSH: Parentheses, exponents... what's next?

STUDENTS: Multiplication.

TYLER-McINTOSH: Next?

STUDENTS: Division.

TYLER-McINTOSH: Next?

STUDENTS: Addition.

TYLER-McINTOSH: Next?

STUDENTS: Subtraction.

TYLER-McINTOSH: We were working on order of operations, my fourth graders were, when we were at the table. And the dry-erase table, we love it because not only does it spin, the kids are able to work their problems out on it. So they're not stuck at their desk, writing on a sheet of paper with a pencil like we traditionally did in the past. And, you know, kids love writing on dry erase board. I don't know what that's about. But having it there at the table... It amazes me how much more work they get done.

TYLER-McINTOSH: 50 divided by... parentheses open, eight plus two. Parentheses close. Everybody has that written down? Okay, great. What do you do first?

CHAKILAH: Eight plus two.

TYLER-McINTOSH: Why?

STUDENTS: Because it's in the parentheses.

TYLER-McINTOSH: It's in the parentheses, and you have to do what first? STUDENTS: Parentheses. TYLER-McINTOSH: Parentheses. So what's eight plus two?

STUDENTS: Ten.

TYLER-McINTOSH: Now, when you do this, write the ten directly under the parentheses.

CHAKILAH: If I didn't go to a after-school program, then I wouldn't get the extra help that I get right now, because my actual teacher who teaches me helps me with my homework.

TYLER-McINTOSH: We have 50 divided by ten. Is there anything else left?

STUDENTS: No.

TYLER-McINTOSH: So, now you're solved.

TYLER-McINTOSH: All the children that I've had after school always do better than my kids that I just have in day school. TYLER-McINTOSH: So your answer is...

STUDENTS: Five.

TYLER-McINTOSH: Five-- that's it.

STUDENT: So easy.

TYLER-McINTOSH: So I'm very appreciative for after-school and being able to be here with my kids. So, yeah.