**Toni Division and Multiplication B**

Student: Eighteen times four.

Toni: Why, why can I do eighteen times four to check this answer?

Student: Because

Toni: Think about what we said about groups and what division is and what multiplication is. Somebody help him out. Take a look at this division problem and explain to me why what Carlos says is correct. Dianna. What does this problem tell me? In this division problem I what.

Student: Dividing **[inaudible]**

Toni: Is my quotient? No. What’s a quotient? Good fancy word that you are using. What is it?

Student: It’s a group of words in division.

Toni: The quotient is not the group in division the quotient is the answer that you get in division. What is seventy-two here? Chantel. My total Dianna seventy-two. I’m starting with my total and doing what to my total. I’m taking my total and doing what to it. Yes.

Student: Dividing **[inaudible]**

Toni: That’s my total. I’m taking seventy-two objects, am I multiply it is that what I just did here. This was our multiplication now what did I do.

Student: Divide it.

Toni: Into

Student: Four groups.

Toni: Into four groups to get in

Student: Total.

Toni: I thought this was my total. Think about what is happening don’t think about filling in my answers. Think about what is happening. If you are starting with a total of seventy-two and you are breaking it up in to four groups then what does the eighteen tell me. What does the eighteen tell me? Don’t worry about this yet either. What does the eighteen tell me? I am going to give you a simpler problem. If I start out with eight a total of eight and I break it up in to two groups what does this four mean. It’s what’s inside

Student: Of your circle.

Toni: Of my circle of my group right? The four tells me what is inside each group. So back here, if I have seventy-two total and I’m breaking it up in to four groups what is the eighteen going to tell me.

Student: The eighteen is the one that’s inside of the circle.

Toni: Excellent. Eighteen tells me how many I have in each circle or in each group okay. Now if I wanted to check this answer with multiplication how would I do it?

Student: Eight times

Toni: What is multiplication? What do I end up with multiplication? What do I end up with in multiplication?

Student: A total.

Toni: A total good. My answer is always my total and what am I using to make my total. Andy could you go work over there please. Thank you. Now. Calvin warning, warning.

Student: Working with eight.

Toni: You are working with a total of eight. Two groups of.

Student: Four

Toni: So if I am dividing I am starting with a total. Breaking it up in to groups and figuring out how many in each group. So when I multiply I can take the number in each group times the number of groups to give me back my

Student: Total.

Toni: So here I divided, I started with my total; I divided into groups and figured out how many in each group. I am now going to take my answer and if I multiply it what should I end up with again. What should I end up with? I should end up with.

Student: Seventy-two.

Toni: I should end up right back with my total. So, when we check we know we are starting with a total breaking it up in to groups. When we multiply back we should end up again with our total just like we do in multiplication anyway.