TAHEEDAH WREN: All right, so let's review our group goals today. And then we're going to get started quickly. Class?

STUDENTS: Show your work. Explain your thinking. Work as a team. Cooperate. Everyone participates. Voice level -- six inches. Voice level -- six inches. Six inches voice level!

TAHEEDAH WREN: Okay, so let's remember to keep our voices down but we want you to be conscious of speaking clearly and explain your thinking in a way that we can hear you but not too loud that we're disturbing our neighbors, okay? So we're going to start with the problem of the month called "Party Time." And you have the paper in front of you, so we're going to read together the instructions. You should have a set of counters that are coming around for everyone to use. So, we're going to start with -- who likes to have parties in our class? Oh, gee. All right, so that's the majority. So, we're going to solve a problem that is about having a party. Inviting people to a party.

So we're going to solve this problem today. Who would like to be our party host?

STUDENT: Ohh!

TAHEEDAH WREN: No "ohh's," just a quiet hand, thank you. Let's see, party host. Where's our equity sticks? Because I'm going to get in trouble. Okay, pull one. Quickly.

STUDENT: Number six.

TAHEEDAH WREN: All right, who's number six, come forward. Come on. And I need one more -- two more.

STUDENT: 28.

TAHEEDAH WREN: 28 is not here, so Leah. You've got everything?

So we're going to invite a few people, this is our first -- come up front.

STUDENT: 13.

TAHEEDAH WREN: Is 13 here? All right, good. You may not need your paper. So, we have three guests at our party. Did you say your names?

STUDENT: My name's Amy.

STUDENT: My name's Eric.

STUDENT: My name's Deana.

TAHEEDAH WREN: So, how many people are in our party?

STUDENTS: Three!

TAHEEDAH WREN: Wow. Wow, I was right. Suppose each of our friends phone two people to come to the party. They're gonna call two people to come to the party. How many will there be at the party? Quiet hands. Max.

STUDENT: Six people.

TAHEEDAH WREN: Six people all together?

STUDENT: No -- wait no -- because if they invited two friends -- wait -- that's nine.

TAHEEDAH WREN: Suppose each friend, each of our friends up here, invited two people to come to the party? How many people would be at the party all together, Max? Let him think, give him a minute. Do you want to use your counters to help you figure it out? Your counters in front of you. You want to help -- use that to help you in any way?

STUDENT: No.

TAHEEDAH WREN: What did you say? Did you understand the question? Want me to repeat it?

STUDENT: Yes, please.

TAHEEDAH WREN: Okay, anyone else? So Max, do you want to try it, or what? Okay, want to call on someone to support you?

STUDENT: [inaudible]

TAHEEDAH WREN: You can call somebody, you can just -- all right.

STUDENT: I'll say -- can you repeat the question?

STUDENT: Oh!

TAHEEDAH WREN: Shhhhhh. Yes. So -- Okay. Each of your friends, they phone two more people. How many people are at the party all together now?

STUDENT: There -- there -- there would be --

TAHEEDAH WREN: You can show your work with your markers, with your counters --

STUDENT: 12 people.

TAHEEDAH WREN: 12 people -- people. Look around, I see some disagreements. I see -- shh -- how -- how many did I say, class?

STUDENTS: Two.

TAHEEDAH WREN: So if each invited three people, it would be different. But the questions is, each one of those -- of our guests in front of the class invited two people. How many are at the party all together?

STUDENT: No.

TAHEEDAH WREN: Are you showing your work? You guys agree?

STUDENT: Didn't I just say nine?

TAHEEDAH WREN: Did he say nine?

STUDENTS: Yes.

TAHEEDAH WREN: I didn't hear him say nine. Is that correct?

STUDENTS: Yes. No.

TAHEEDAH WREN: All right, so why don't you invite two people, have them come over. Each one of you, let's act it out. So each one of you will invite -- call two people. Shhh, okay.

STUDENT: Michelle. And Symphony.

STUDENT: Lebron and Marquis.

STUDENT: Cindy and Jerome.

TAHEEDAH WREN: So, how many people do we have all together?

STUDENTS: Nine.

TAHEEDAH WREN: Let's count them again. Count your people up there.

STUDENTS: One, two, nine, nine, nine.

TAHEEDAH WREN: So, Max. What do you think? What are you thinking, Max?

STUDENT: I said nine.

TAHEEDAH WREN: Yes. How many were not sure about nine? And what helped you to be more sure about the number of people there at the party? Can you explain your thinking?

STUDENT: I don't see why they're disagreeing with me!

TAHEEDAH WREN: Perhaps they needed to see it in front of them.

STUDENT: They did it twice.

TAHEEDAH WREN: Okay. Yes, Cynthia.

STUDENT: Okay, what I didn't get was like, if it was including -- N or whatever your name is -- Cindy. Yeah. I didn't know if it was including Cindy, so then I disagreed with Max, because of that.

TAHEEDAH WREN: All right, and what else? Good thinking. Yes?

STUDENT: First I thought it was five.

STUDENTS: [snapping]

TAHEEDAH WREN: That means yes, they agree.

STUDENT: They -- it was like -- and then when you was asking Max, you said “each,” so then I thought it would be -- then I gave each.

STUDENTS: [snapping]

TAHEEDAH WREN: And what did you total all together?

STUDENT: What?

TAHEEDAH WREN: How many did you have altogether?

STUDENT: Nine.

TAHEEDAH WREN: Okay, anyone else have any -- another way of arriving at this answer, nine, or that have come up with a different answer? Yes? Francisco?

STUDENT: I used my slate and I drew three circles because um -- three circles is -- has -- well, there's one person in each circle first, because -- there would be one person in each circle first that would be the host. And then after the host all invite two people, so then you add six more here and that would equal nine.

TAHEEDAH WREN: So -- so he used his slate to visualize -- to make a model -- to visualize the people represented in the party. And sometimes we need more than one way of seeing it. Like Max, I think, figured it out in your head. How did you figure it out, Max? I won't speak for you, I'll let you speak. Speak.

STUDENT: Because I did -- because there’s three people up there and each of them is gonna bring two people that would make [inaudible] six --

TAHEEDAH WREN: Can you hear? A little louder?

SPEAKER: Max, can you sit up for a split -- what you have to say matters, is important, and we want to hear it.

TAHEEDAH WREN: Yes.

STUDENT: What I did is because there's three people up there, was three people up there, and then you said that each people -- each person -- invites two people to come. And then, um, so I just -- I knew that six plus three equals nine, so I just counted them in my head.

TAHEEDAH WREN: Okay. Anyone? Any more comments?

SPEAKER: How many of you snuck ahead and looked at the other level A? Because I heard you talking about Cindy. There we go. So she appears -- she appears on the next tape. So it's a little bit different question than the first prompt that [inaudible].

TAHEEDAH WREN: So, one, two more comments to Merrick, and then to Lebron.

STUDENT: Um, didn't it say -- doesn't like -- when the party host invites three friends, doesn't it mean them included?

TAHEEDAH WREN: What --

STUDENT: Because there's only three people but there's supposed to be four, but the party owner.

TAHEEDAH WREN: So, we just -- are you thinking -- thinking the same thing? Let's read over and make sure we understand the question.

All right, let's read over. Who would like to read the question again? Who would like to read the question? All right, Temarya.

STUDENT: Who -- who -- who likes to have parties in our class? We are going to solve a problem about inviting friends to a party. Who would like to be our party host? Please invite --

TAHEEDAH WREN: Okay, we don't have to do the whole thing, just read.

STUDENT: The teacher says to the host, "Let's start by inviting three -- let's start by inviting three friends to the party." How many people are there at the party?

TAHEEDAH WREN: Okay, so if you're inviting three people at the party, how many are there?

STUDENTS: Four.

TAHEEDAH WREN: Ah, four people? Four people? Amy, did you say something? Anything else? Keep going. Yes, no, I'm sorry, who's next after him? Lebron? Go ahead, Lebron. Any questions? Or any additional information I can add? After him.

STUDENT: How I got my answer, I already know that two plus one is three, so I just added three, plus three, plus three, which is nine. If everybody invites two people.

TAHEEDAH WREN: Yes, Symphony?

STUDENT: So, also, the reason I thought it was ten was because it said, "Suppose each of the friends phone two people to come to the party. How many will be at the party altogether." So, then I had -- so, since there was three up here and then each invited two and then that would make nine plus the -- Cindy, or the host --

TAHEEDAH WREN: The host.

STUDENT: So then I got ten.

TAHEEDAH WREN: So, does anyone agree with Symphony and change your mind or you still hold on to what you're thinking of? Max, did you understand what she's saying? Someone is the host of the party that invited other people right? So are they -- is that host included when we say how many are at the party altogether?

STUDENT: Yes.

TAHEEDAH WREN: Talk to you neighbor. Yes, take a seat, thank you. Talk to your neighbor about that question.

STUDENT: This page says Cindy had invited two guests, so she has two guests. She has two guests. And then she, her guest each invited four guests --

TAHEEDAH WREN: Okay, this question, did anyone change their understanding or idea about what's -- before you -- have you changed since you've had this discussion, or since we've talked about it in class? Anyone change their position? Yes.

STUDENT: [inaudible]

TAHEEDAH WREN: So, you had the same from the beginning and then it didn't change?

STUDENT: Well, yeah, I did.

TAHEEDAH WREN: You had nine at first?

STUDENT: Mm-hmm.

TAHEEDAH WREN: Okay.