CATHY HUMPHREYS: Alright?

STUDENT: I think we should do a trapezoid. Our statement would be: if two diagonals are congruent and do not intersect or do not bisect each other and create congruent segments then the figure is a trapezoid, an isosceles trapezoid.

STUDENT: Yup, but how do you say that they don't bisect each other but they intersect at the same spot?

STUDENT: What?

STUDENT: Because they have to intersect at the same spot to be an isosceles triangle; I mean a trapezoid. Got it?

STUDENT: Oh yeah.

STUDENT: How do we prove it?

STUDENT: Let's just do a square.

STUDENT: A square?

STUDENT: Yeah, I'm not joking.

STUDENT: Let's do a rectangle then.

STUDENT: How about a rhombus?

STUDENT: We just did a rhombus.

STUDENT: Did we really? No, we did a parallelogram.

STUDENT: Wait. Oh, let's do a rhombus. Okay, so if the two diagonals are not congruent but are perpendicular and bisect each other then the figure is a rhombus?

STUDENT: Yes.

STUDENT: What's the difference between a rhombus and a…

STUDENT: And a what?

STUDENT: That.

STUDENT: All sides are congruent.

STUDENT: All sides are always congruent.

STUDENT: So what's the difference with a...thing?

STUDENT: What do you mean?

STUDENT: What's the difference with a diagonal?

STUDENT: Between that and a rhombus? A rhombus isn't perpendicular.

STUDENT: (Inaudible)

STUDENT: It is. That one is not.

STUDENT: Oh, oh. Got it!

STUDENT: I'm recorder.

STUDENT: Facilitator go the get stuff.

STUDENT: What do I get?

STUDENT: I thought Chris was facilitator.

STUDENT: I mean resource manager.

STUDENT: What do we get – paper?

STUDENT: Can you please go get some paper and markers for us? Thank you!

STUDENT: Let's just draw one out. I was like wait, what did I just do wrong – that's a square.

STUDENT: There you go. We're doing the rhombus?

STUDENT: Yeah.

STUDENT: I think we should get the...

STUDENT: Okay. This is congruent to this.

STUDENT: And you have to draw the thing that indicates ninety degrees – the ninety degree mark.

STUDENT: There are other groups doing rhombus too.

STUDENT: Who cares!

STUDENT: We can beat them up.

STUDENT: Maybe we should do an isosceles triangle, I mean trapezoid.

STUDENT: That's what I said. No, we're not going back now; you guys disagreed with me. Should I make it bigger?

STUDENT: No.

STUDENT: That's fine?

STUDENT: This is just the, like the little…

STUDENT: Rough draft?

STUDENT: Yeah, rough draft.

STUDENT: Okay, so we write down our "if then" statement?

STUDENT: No, yeah. No, yeah.

STUDENT: So if the diagonals are not congruent and they bisect each other right? And are perpendicular– wait, do we say "and all sides are congruent?"

STUDENT: Yeah, you have to.

STUDENT: Should I go get the definition?

STUDENT: Yeah. Then the figure is a rhombus right?

STUDENT: Don't they have to bisect each other at each other's midpoint?

STUDENT: Yes.

STUDENT: I want to do either a kite or a rhombus.

STUDENT: Rhombus.

STUDENT: Why a rhombus?

STUDENT: We have to do it in a group?

STUDENT: Yeah, we're doing group...exactly what she did on the board. So we are defining it and then proving it.

STUDENT: I say rhombus because I said square rhombus and you said kite rhombus, so…

STUDENT: So what do you guys think? What do you guys want to choose?

STUDENT: Rhombus. We have barely any information on the rhombus? We have more information...

STUDENT: On the rhombus?

STUDENT: We were working on the parallelogram but if we ignore the green one then this would make a parallelogram. Wait no…a rhombus.

STUDENT: That's a rhombus. Okay, so let's define what a rhombus is.

STUDENT: Do you need one?

STUDENT: Yes.

STUDENT: I'll get one for you.

STUDENT: So "if then" statement for a rhombus.

STUDENT: No, write square. Not square. Generic means it's like a regular rhombus. A square can technically be a rhombus but we're not proving that a square can be a rhombus, you know? We are just proving a regular old rhombus. That's it. If the diagonals are different lengths and they have to be

perpendicular to each other though. No and they have to be perpendicular – yeah, right and they are perpendicular.

STUDENT: First it has to be at their midpoint.

STUDENT: Yes, it has to be at their midpoints and they have to be perpendicular; they bisect each other and... Okay, wait, wait. Don't write anything yet, so we organize our thoughts before we write it down. So we know that they have to be different lengths right? We know that they have to be perpendicular to each other and we know that they bisect each other. What else?

STUDENT: Is that it?

STUDENT: That's it right? They bisect each other. That's it. So now we've proven it. See, bisect each other, are perpendicular to each other and then the quadrilateral formed is a rhombus. I'm just checking the diagonals to see. So in a rhombus this would be congruent to this and this would be congruent to this.

STUDENT: So should we label it with ABCDE?

STUDENT: Yeah, but we can only do it on this thing though. So then...

STUDENT: Should I draw a rhombus?

STUDENT: Yeah, draw a rhombus. There you go. You want to write what a rhombus is?