

HILLARY LEWIS: Actually, let's move away from the right isosceles. I'm wondering if you were able to make any acute isosceles triangles. Were you able to make acute triangles? Were you? Right now I'm gonna see if you can make any more acute triangles, and check them with your partner to make sure that you have it right.

All right, so how many of you made one acute ... What'd I say? Acute isosceles?

STUDENT: Yeah.

STUDENT: Yes.

HILLARY LEWIS: Isosceles acute? How many of you made one? Show me with your fingers how many you made. Did you make one, two, three? Two? I've seen two. Lots of you ... You made eight?

STUDENT: Yeah.

HILLARY LEWIS: Oh. She made a whole bunch in one of the figures. Okay.

I have one last challenge before we clean up for the day. Can you make, and this one you may need to ... No, I'm not even gonna give you that hint. Can you make me a triangle with three obtuse angles? Go.

STUDENT: What?

STUDENT: It's impossible.

HILLARY LEWIS: Talk to your partner. Talk to your partner. Talk to your partner.

STUDENT: That's an obtuse.

STUDENT: Even if you do make even two, like if you go, yeah like two, okay, you need another side to connect them. Then, that would make that a quadrilateral. Even if you made it a right angle they're not gonna connect. They don't ... [inaudible] Even if it's barely slanted, eventually it'll ...

STUDENT: Like this.

STUDENT: Yeah, it's impossible.

HILLARY LEWIS: I asked you to make a triangle with three obtuse angles. How'd you do? How'd you do? How'd you do?

STUDENT: [inaudible]

HILLARY LEWIS: You had one triangle with three obtuse angles?

STUDENT: Could I just ... I've got something else to show.

HILLARY LEWIS: We're gonna stay on ...

STUDENT: ... the three obtuse angles, like past the 90 degree. If you want to make it three obtuse angles, it'll cross the 180 degree line, and it'll become acute.

STUDENT: What?

STUDENT: What?

STUDENT: Oh yeah.

HILLARY LEWIS: All right. Aarav, what did you want to say?

STUDENT: I think it's impossible, because all of the angles have to add up to 180 degrees, so if all the angles are 90 degrees, which is right ...

STUDENT: No. Over 90.

HILLARY LEWIS: Let ...

STUDENT: If all of them are 90 degrees, then if you add them all up it'd be 270 degrees, which is over 180 degrees, but it has to be less than 180 degrees or ... No, it has to be 180 degrees if it's a triangle. If it's all obtuse, then it'd have to be all its angles more than 90 degrees, so then it would be way over 270, which is way over 180.

HILLARY LEWIS: One more comment from Bennett, and then we're gonna ...

STUDENT: Can I show what I've done?

HILLARY LEWIS: Sure.

STUDENT: You see up in that top left corner drawing, you see that right there, that would be two obtuse angles from that line right here, but it wouldn't be a triangle because those lines would just go on forever, and they would never connect. Same thing with this right -- well, not exactly right, but right angles. It would just go on that way forever. That's why you can't have more than one obtuse or a right angle in a triangle, because these two inner lines, those are two angles. If these ones kept going they would eventual cross to make a triangle.

HILLARY LEWIS: Any questions for Bennett? You have a question for Bennett?

STUDENT: [inaudible]

HILLARY LEWIS: A response to Bennett?

STUDENT: Yes. I kind of agree with Bennet. When he said that you can't make a triangle with two right, because when he said the lines would go forever, and if you try to meet them it'll make a quadrilateral because it will be a line, and you'll get four angles, or four end points in it. It'd be a quadrilateral, not a triangle. It's impossible to make a triangle with three obtuse or three right angles.

HILLARY LEWIS: Thank you.

STUDENT: If you try to connect them, to connect to have these two lines connect it would take another line, and that would make it four lines not a triangle.

HILLARY LEWIS: Thank you. Thank you, Bennett. Thank you for your response. You know that Juju, we need to wrap up for today. I'm sorry that we didn't get to your last comment. Can I ask you to put the pencils back in the cup, and the rulers in a pile, and your papers in a nice, neat pile on your table?