STUDENT: And that's 12 inches?

STUDENT: Yeah? Well, if we change the slant length to 5 ...

STUDENT: 3 ... to ... 5.

STUDENT: 15.

STUDENT: So I changed the slant length.

STUDENT: For ... What was the 12 --

STUDENT: 12. Then when we changed the slant length to 5, it went to 15.

STUDENT: You can see that by doing this, the wide slant equals that ... I don't know how that affects ... how 2 affects that. So this one is 15 ... So try, like, 6 or something.

STUDENT: Okay. So I'll reduce that to 4 ... Oh, try this at 6?

STUDENT: Yeah.

STUDENT: Okay it's following a pattern.

STUDENT: 18.

STUDENT: Okay I'll change this back to 4. If we want to change the narrow diameter to --

STUDENT: 1.

STUDENT: 1.

STUDENT: 4 ... So that was 6 ... Well, we had this one up here, and this one ... And this one is double that one.

STUDENT: You're right. You're right.

STUDENT: Yeah.

STUDENT: Okay let's try it at 3 then.

STUDENT: 3, 3, 4 ...

STUDENT: Oh, it's the wide and narrow --

STUDENT: Oh, of course. Okay. Okay let's do one and a half.

STUDENT: Wait, one and a half for the narrow diameter? And wide is 3, then 4, and that's 8. So that is in between ... not in between ...

STUDENT: Okay, so narrow diameter is definitely affecting it.

STUDENT: Yeah.

STUDENT: Yeah.

STUDENT: So ... Hold on, hold on, hold on. So ... if the difference between this is one and a half ... one and a half… no. One… no.

STUDENT: Oh, I see what you mean.

STUDENT: So this is, like, this is ... If you continue this, they'll meet up after another one and a half centimeters -- one and a half inches.

STUDENT: Yeah.

STUDENT: So then a slant length of 8 then ... Would it be ... No, no, that wouldn't change. So -- but if we continue this slant, if we continue it another one and a half inches, if would meet up at the center.

STUDENT: And be a cone.

STUDENT: Oh, I want to try something. Can you do three and a half on this one and then 3 on this one? And then make the slant length, like, 1 inch. Does that make it smaller? Okay, so the slant length needs to be larger than both of those.

STUDENT: So slant length 3.5. Let's just see that. It's the same. I just want to try this ... So wait, is there any correlation between this, this, and this?

STUDENT: Yeah, that's what I was trying to figure out.

STUDENT: Because it's, like 3.5 times 2 times 100.

STUDENT: OK, now do it with, like, 50.

STUDENT: 350. [inaudible] Exactly.

STUDENT: Okay, wait.

STUDENT: 25. And that would be, that would be -- 100 ... 175.

STUDENT: Okay. So it's --

STUDENT: So we know that --

STUDENT: -- 2 times wide --

STUDENT: -- times slant equals --

STUDENT: -- equals roll radius. Okay now let's try it --

STUDENT: -- equals the roll radius.

STUDENT: Okay let's try it with --

STUDENT: Let's try 2 point --

STUDENT: Okay, I'm going to do it with this one. Two and a half times 2 ... times 5 …

STUDENT: It's 500. Yeah. 2.5 times 2. Five times 100 is 500.

STUDENT: Okay.

STUDENT: So wait ... Here let's try --

STUDENT: Yeah let's try it with these ones.

STUDENT: So 2.5 ...

STUDENT: So 5 ...

STUDENT: Times 2 ... So, and then times -- oh, and then slant length is what? 5.75? So ...

STUDENT: It should be --

STUDENT: 5 times --

STUDENT: 28.75. Okay now we have to see ... Make that 1 or something and see if that affects it. Okay --

STUDENT: 9 --

STUDENT: So how do these correlate?

STUDENT: So the difference is --

STUDENT: As long as the wide diameter is .5 larger than the narrow diameter, I'm pretty sure that equation works every time. But --

STUDENT: Here, like, let's try 4.5 and ... Let's try 4 and 3.5.

STUDENT: Yeah. No, wait. Yeah.

STUDENT: Is there a ... And let's try, like, 10. Easy. So, 80, yeah, 4 times 2.

STUDENT: Okay --

STUDENT: Times 10 equals 80.

STUDENT: So this only works if the wide diameter is .5 larger --

STUDENT: Yeah. Okay. So --

STUDENT: And so --

STUDENT: Okay --

STUDENT: So how do these --

STUDENT: So let's try it with an inch and see how those correlate.

STUDENT: Okay.

STUDENT: So 4 and 3? Okay. So 4 times 10. So it was 3 times 2? That's ...