

Description: Clip 2 of 5: Alan finds the difference between one half and two fifths Parent Tape: Revisiting construction of large models to compare fractions Date: 1993-10-08 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher	Transcriber(s): Yankelewitz, Dina Verifier(s): Yedman, Madeline Date Transcribed: Spring 2009 Page: 1 of 2
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- 10.2.59 Alan: So, um, if you took out two of those [two red rods] that would be two fifths, and that would be a half [a yellow]. And one of those would fill in the gap [white rod], so it would be one tenth, so it would be a half is bigger than two fifths by one tenth.
- 10.2.60 T/R 2: Neat, ok.
- 10.2.61 Alan: And then down here it's basically the same size as the orange, I just made a train of a brown and a red, [inaudible, Alan's second model is a brown and red train, two yellow rods, and five red]
- 10.2.62 T/R 2: Ok, do you think now that you can, I mean you're working on this one I can see, do you think you can come up with one that's a different total length than, one's that's different from these two, these two have the same length?
- 10.2.63 Alan: I'm working on that one down here.
- 10.2.64 T/R 2: You're working on that one, it looks like you're working on a bigger model here.
- 10.2.65 Alan: Mmm hmm. [Alan's third model is two blue rods, four purple rods, but he dismantles it and builds one with two trains of two orange rods, five purple rods, and ten red rods]
- 10.2.66 T/R 2: Does that one work?
- 10.2.67 Alan: Yup.
- 10.2.68 T/R 2: A working model here? Tell me about that one.
- 10.2.69 Alan: Ok, the two oranges make the whole.
- 10.2.70 T/R 2: So we're calling this, the two oranges together one. Ok.
- 10.2.71 Alan: And these, the five purples are the fifths, and the two oranges again are just the halves, now down here, the reds are the tenths. And again if you remove that [two purples and an orange] it would take one of those [red] to fill in the gap, so it's bigger by, one half is bigger than two fifths by one tenth.
- 10.2.72 T/R 2: Can I ask you a question now? Why did you choose the two oranges to be one? You seemed to come up with that pretty quickly.
- 10.2.73 Alan: Because up here, I knew that this was ten, and two tens would be twenty, and I knew that that would work, so it takes two of those to complete it using a double ten. So one of those [red rods] filled in the gap. Probably if you used another one [takes a third orange and gestures to show that a fourth orange rod would be placed along with the first three] another two, you could fill in that with more purples and using more reds, too.
- 10.2.74 T/R 2: Interesting!
- 10.2.75 Alan: And it could make more.

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10.2.76 T/R 2: Ok, so you did ten, you called it ten and twenty because of the little white ones. That's an interesting theory, could you kind of test that one out for me and, see, see if you could build a bigger model?

10.2.77 Alan: I'm trying to build a bigger model.

10.2.78 T/R 2: If you need more stuff, I've got more rods

10.2.79 Alan: I can use from these models [dismantles first model]

10.2.80 T/R 2: Ok. I've also got more rods up there.