Description: Small group work: Comparing one half and one fourth **Parent Tape: Comparing Fractions: Number Names and a Preliminary Method of Generating Models** **Date: 1993-10-01** **Location: Colts Neck Elementary School** **Researcher: Professor Carolyn Maher**	**Transcriber(s): Yankelewitz, Dina** **Verifier(s): Yedman, Madeline** **Date Transcribed: Spring 2009** **Page: 1 of 3**

6.0.108	T/R 1:	Ok, let's try this one, which is bigger, one half or one quarter and by how much? Which is bigger one half or one quarter? And whichever is bigger by how much? Do you understand the problem? Work with your partner, and build a model and see if you can solve it.
6.0.143	Erik:	One half or one quarter?
6.0.144	Alan:	Now I get that the quarter is. Look, here's a quarter. You can't make this into quarters [dark green rod]. A quarter is four parts. But you could make this [orange and red train] into a quarter.
6.0.145	Erik:	Ah hah
6.0.146	Alan:	By taking
6.0.147	Erik:	Actually you can't make it into a quarter
6.0.148	Alan:	What?
6.0.149	Erik:	I don't think you can, well, actually you can, these, these will probably [takes light green]
6.0.150	Alan:	Oh yeah yeah yeah yeah
6.0.151	Erik:	two three four
6.0.152	Alan:	Now we eliminate that [moves aside red and white rods]. One half is bigger than one quarter by one quarter.
6.0.153	Erik:	Exactly! [laughs] That was easy!
6.0.154	Alan:	Hey, now I quartered it, so I can put these [red rods] back on.
6.0.155	Erik:	There we go! That's yours, where's mine. There it is!
6.0.156	Alan:	There we go! A whole model and only sized that [holds a green rod]
6.0.158	T/R 1:	How many of you think you have a solution? How many of you think you now the answer to that problem and you can prove your answer? Raise your hand if you think you have a solution and you can prove your answer. And you know you have a solution. Ok, I see two different solutions possibly, or two different arguments you have to convince us they're correct. So if you're done and you're waiting you might want to think about a second one. Ok.
6.0.159	T/R 1:	So have many do you have David, how many arguments can you make, how many models can you build? Okay David said he could build two or three. I see Jessica has two and Andrew has two some of you are building a few models
6.0.160	T/R 1:	Ok, I see one model up there and there's another one maybe Amy and, uh, James you could build your model when their finished?
6.0.162	Alan:	Hey, there's another thing you can quarter! Look! There's two ways [two orange rods and four yellow rods]
6.0.163	Erik:	Oh!
6.0.164	Alan:	You can quarter a train of orange rods

Description: Small group work: Comparing one half and one fourth Parent Tape: Comparing Fractions: Number Names and a Preliminary Method of Generating Models Date: 1993-10-01 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher	Transcriber(s): Yankelewitz, Dina Verifier(s): Yedman, Madeline Date Transcribed: Spring 2009 Page: 2 of 3

6.0.166	T/R 1:	Ok, um, I really, I saw a new one, Gregory has one I haven't seen yet. Um so I see three of them so far. I see four of them so far Alan has another one I didn't seen. Four different models. I am seeing if I can see another one that I haven't seen. I see four different models I see five different models! Andrew has one I haven't seen and Jessica. Five different models! I wonder if you can argue your models. Five of them. Let's see if you can find one that I haven't seen yet.
6.0.168	Erik:	I wonder if you can quarter this. [As T/R 1 speaks] I got another one! [whispering] All you have to do is keep going down by two. Brown, you minus two, take that rod, and you can quarter that one. Brown, black then dark green!
6.0.169	Alan:	Dark green can't be quartered, no it can't
6.0.170	Erik:	Two dark greens
6.0.171	Alan:	We got it! We have an answer! [to T/R 1] We have four different models
6.0.172	T/R 1:	Four? So you're going to explain how you got your different models, Alan?
6.0.173	Alan:	We're subtracting by two. Two down from the orange would be the brown.
6.0.174	T/R 1:	Could you explain that to Dr. Davis back there? Whisper that to him. Tell him what you're doing to get your models. [To Dr. Davis] I want you to hear this.
6.0.175	Erik:	[coming back to their seats] -four already. So two from the brown would be yellow
6.0.176	Alan:	Two from the brown would be two yellows
6.0.177	Erik:	Yellows- reds
6.0.178	Alan:	What, no.
6.0.179	Erik:	Yeah.
6.0.180	Alan:	No. You can't quarter the yellow. That's just the point you can't
6.0.181	Erik:	Hold on. Oh yeah, you're right. Purple!
6.0.182	Alan:	Purple, purple. That's it, that's it.
6.0.183	Erik:	Purple's reds, then.
6.0.184	Alan:	Yeah, purple. Two reds for a purple. Definitely, definitely.
6.0.185	Erik:	Two minus purple would be red! Red
6.0.186	Alan:	Here's what we'll do. We'll put all our fractions in this box top so they won't break.
6.0.187	Erik:	We'll just put it on the table. We're ready, oh no we're not.
6.0.188	Alan:	Yes we are.

6.0.190 T/R 1: Ok, ok, I think we're almost ready.