Description: Comparing one half and one third: Different number names for the white rod **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**

6.0.63	T/R 1:	White then would have what number name when I call the orange and red one? White would have what number name? How many of you think you know the answer to that? What number name would I give to white when I call the orange and red one? How many of you think you know the answer to that? You might want to look at your model, you might build a model build an orange and red one. Ok, hw many think you know the answer to that some of you have built a- James?
6.0.64	James:	[inaudible] aren't really sure
6.0.65	T/R 1:	What do you think?
6.0.66	James:	I think its one sixth
6.0.67	T/R 1:	You think the white is one sixth?
6.0.68	James:	Yeah
6.0.69	T/R 1:	Okay so James isn't sure but he thinks its one sixth, Brian?
6.0.70	Brian2:	Is it one twelfth?
6.0.71	T/R 1:	Brian thinks its one twelfth? Ok, Laura
6.0.72	Laura:	One tenth
6.0.73	T/R 1:	Laura thinks it's one tenth. We have three possibilities here now. Wow, one sixth, one twelfth, one tenth. Okay take a minute, talk to someone next to you and see if you agree. Unless we have a different is there another? Okay, what's the number name for the white when you have an orange and red?
6.0.75	Meredith:	Yo, yo! [tapping David on the back] One sixth. Count the ones! [Pointing to the overhead.]
6.0.76	David:	No, We're working with orange and red.
6.0.77	Meredith:	No, We're working with that. We're working with that model. [Pointing to the overhead where there are six whites]
6.0.78	T/R 1:	Orange and red is one.
6.0.79	David:	We are working with orange and red.
6.0.80	Meredith:	Oh, Orange and red? Then it's twelve.
6.0.81	David:	Yes, I know. One twelfth. [they talk about their sculptures.]
6.0.85	T/R 1:	Okay, um, James changed his mind, so since he changed his mind I am going to let him tell us when he changed his mind. He thinks he's going to argue for why he's changing his mind.
6.0.86	James:	Okay.
6.0.87	T/R 1:	If we call the orange and red one.
6.0.88	James:	Now I think it might be one twelfth, cause orange, and orange and red equals twelve white ones. So umm

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6.0.89	T/R 1:	Let's see, are there twelve of them there? I see one, two , three, four, five, six, seven, eight, nine, ten. Looks like you made an argument for ten. It's hard - let me help you by holding this still.
6.0.90	James:	And its one twelfth cause there's one two three four five six seven eight nine ten eleven twelve.
6.0.91	T/R 1:	How many of you agree with that? How many of you still disagree? How many of you think its one tenth? How many of you think it's one sixth? How many of you think its one twelfth [all visible hands raised]? I heard, I heard another comment from Sara and Beth and I would like you to share. Thank you James
6.0.92	Beth:	Well, um, a dark green is half of one orange, I mean orange and red and then the dark green has six blocks, six whites, and if you have two dark greens six and six is twelve. And that's why we think its twelve.
6.0.93	T/R 1:	But I heard Sarah something even different than that?
6.0.94	Sarah:	Umm, I said that umm, you have six of these reds. If you times these by two you'd get twelve.
6.0.95	T/R 1:	If you times them by two, why would you times them by two Sara?
6.0.96	Sarah:	Because if you had if you put two next- two little ones right on the bottom of the red it would equal two. So you would go two times.
6.0.97	T/R 1:	Ok, that's interesting. Anybody have any other comments before we leave this problem. Do you agree now that we have two different ways of showing? That one half is bigger than one third by one sixth? Do you think you could write about those two different ways? How many think you could write about those now? Some of you are still not sure? Erik you could write about those two different ways can't you? Can't why?
6.0.98	Erik:	Um
6.0.99	T/R 1:	Who thinks they can write about them two different ways, and why, Kelly?
6.0.100	Kelly:	I think I can write about them because now I understand which or how is what one goes cause now there's not just one different kind there's all different kinds.
6.0.101	T/R 1:	Anybody else what to say why he or she thinks, Brian?
6.0.102	Brian2:	Well I understand the problem and I feel that I can write about it.
6.0.103	T/R 1:	Okay, both of them? Both of the models?
6.0.104	Brian2:	Well, not both of them but the one, the twelfth I can write about it
6.0.105	T/R 1:	What do you mean the one twelfth
6.0.106	Brian2:	The twelfths, the twelve of them equal the red and the orange rod

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6.0.107	T/R 1	Anybody else want to comment about the way you feel about this problem?