

Description: Equivalent names for the number named one (clip 3 of 4) Parent Tape: Number Line Models and Placing Numbers on the Big Number Line Date: 1993-11-10 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher	Transcriber(s): Yankelewitz, Dina Verifier(s): Reid, Adrienne, Farhat, Marcelle Date Transcribed: Spring 2009 Page: 1 of 9
--	---

Line	Time	Speaker	Transcription
1.		RT1	I would like someone to tell me where you would place one. You can talk to your partner if you want too but, I would like you all to think about where you would place one.
2.		Students	[Student off camera asks which number line.]
3.		RT1	On the one Alan made. On Alan's line.
4.		Students	[Murmurs off camera]
5.		RT1	Some of you think we need to make the number line longer. Some of you do not think we need to make the number line longer. Okay.
6.		Students	[Murmurs]
7.		RT1	Also, what reasons you have for why you think so or why not.
8.		Students	[Group discussion.]
9.		Groups	[Mrs. Phillips works with Amy, Jakki and James.]
10		RT1	By the way ... if you have worked that one out, I am curious where you would put four-fourths.
11		Students	[Group discussion continues. RT1 walks around room.]
12		RT5	[RT1 walks over to Gregory and Danielle] You have a very interesting concept. Why don't you share that—go ahead.
13		RT1	Why don't you go talk to Alan or Meredith? See what they have to say ... [Students walk over to Meredith.]
14		Students	[Group discussion continues.]
15		RT1	Where would you put four-fourths Erik and Michael? Where would you put five-fifths? Seven-sevenths? A million-millionths? Are you prepared to argue that

Description: Equivalent names for the number named one (clip 3 of 4) Parent Tape: Number Line Models and Placing Numbers on the Big Number Line Date: 1993-11-10 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher	Transcriber(s): Yankelwitz, Dina Verifier(s): Reid, Adrienne, Farhat, Marcelle Date Transcribed: Spring 2009 Page: 2 of 9
--	--

			position? Michael, why?	
16		Michael	[<i>Off camera</i>] Because	
17		RT1	Okay, so you are telling me that that is just another name for one? You want to put those number on the bottom. Remember we agreed you must put the numbers on the bottom. Erik so forcefully told us that people will be confused. Alan had a very nice method.	
18		Students	[<i>Group discussion continues. Students congregate at overhead.</i>]	
19		RT1	Ok. Are we ready to come back and share our ideas? [<i>Students move back to seats.</i>] I would like all of us to listen to some. We have at least two different positions, here. I think I will give Meredith the first crack at an argument because it was her number line that raised the question to me. And, this is something I am, of course, going to want you to write about—about your arguments and why you think so to see if we can come up with some common understanding of where to place some of these numbers. Are you ready?	
20		Students	[Room is silent.]	
21		RT1	Ok. Meredith, go ahead.	

<p>Description: Equivalent names for the number named one (clip 3 of 4) Parent Tape: Number Line Models and Placing Numbers on the Big Number Line Date: 1993-11-10 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher</p>	<p>Transcriber(s): Yankelewitz, Dina Verifier(s): Reid, Adrienne, Farhat, Marcelle Date Transcribed: Spring 2009 Page: 3 of 9</p>
---	--

22	Meredith	<p>You asked me where to place one. I think if you have thirds—one third, two thirds, three thirds—three thirds would be equal to one. See because one third, two thirds,</p> <p>and three thirds</p> <p>—three thirds is the same as saying one. Four fourths is the same as saying one. A hundred hundredths is the same thing as saying one.</p>	
23	RT1	What do you think? Michael?	
24	Michael	I think that if you have a number with the same number on top as in the bottom, then it is always going to be equal to the number named one.	
25	RT1	Who disagree with that?	
26	Students	<i>[Room is silent.]</i>	
27	RT1	Who disagrees with that idea?	
28	Students	<i>[Room is silent.]</i>	
29	RT1	Who has a question about that idea?	
30	Students	<i>[Room is silent.]</i>	
31	RT1	Jessica you are making a face, are you confused?	
32	Jessica	I think, yeah, I agree with her.	
33	RT1	Alan, do you have a comment?	
34	Alan	No, what I was saying before when I was talking is that zero to the one third mark is one third. zero to the two thirds mark is two thirds. Zero to the three thirds mark is three thirds. Now, three thirds you cannot have any more thirds or you would have four thirds. Then you have to make the thirds bigger or not have another. You can only have three thirds.	

<p>Description: Equivalent names for the number named one (clip 3 of 4) Parent Tape: Number Line Models and Placing Numbers on the Big Number Line Date: 1993-11-10 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher</p>	<p>Transcriber(s): Yankelwitz, Dina Verifier(s): Reid, Adrienne, Farhat, Marcelle Date Transcribed: Spring 2009 Page: 4 of 9</p>
---	---

35		RT1	Okay. Let us hold that question about what would happen if we had four thirds.	
36		Meredith	You only have four thirds, if you are going to have that you could only have four fourths not four thirds, you can have four thirds.	
37		RT1	You cannot have four thirds not in that interval. I wonder if we could have four thirds if we went further?	
38		Meredith	Then we would have to have six thirds.	
39		RT1	Then, we would have to have six thirds. Ok. Hold on. Meredith just said—I want to make sure you are all able to hear what she just said—I believe she said that you cannot have four thirds in this interval, but I asked the question ... if you extend the interval, could have four thirds?	
40		Meredith	If you made it to two, you would have six thirds, and then you could place four thirds.	
41		RT1	If you made it to two, you would have six thirds, and then you could place four thirds. That is a very interesting idea. Bryan, what did you have to say?	

Description: Equivalent names for the number named one (clip 3 of 4) Parent Tape: Number Line Models and Placing Numbers on the Big Number Line Date: 1993-11-10 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher	Transcriber(s): Yankelwitz, Dina Verifier(s): Reid, Adrienne, Farhat, Marcelle Date Transcribed: Spring 2009 Page: 5 of 9
--	--

42	Brian	<p>Alan thinks that I am placing four thirds and I am not. Because you see, I think that you would start on the negative side. Like umm ... [<i>stands up and walks to overhead</i>] For example, you would probably start on the one third and right between the one third</p> <p>and the two thirds would be one third, right</p> <p>between the two thirds and the three thirds</p> <p>would be two thirds and, you see, he thinks that when I add that there, he thinks that zero to one third is a fraction, it is not. Because zero is a separate number and it is not a fraction, and so I would think that if you start on the one third and anything pass that if you keep going up you would hit two thirds and anything between there would be one third. But if you start at zero and you go across and you hit the one third, zero is not a fraction, so if you add one more, zero between one third is not a fraction, so it would be four thirds.</p>	
43	RT1	Some people have written zero as zero thirds.	
44	Alan	Okay. What I was saying before is this ... [<i>Stands up and walks to overhead</i>].	
45	RT1	Let us see what Meredith is doing here. Well, that is very interesting. Very interesting what Meredith is doing up there.	
46	Alan	Okay. What I am saying is that zero to the one third mark—anything from zero to one third—is the one third. Now, anything pass the one third mark we would be calling one third, zero. [<i>Meredith draws arrows on either end of line for the zero to 2 segment.</i>]	
47	Brian	See, one third is higher than zero ...	
48	Alan	Right.	

Description: Equivalent names for the number named one (clip 3 of 4)
Parent Tape: Number Line Models and Placing Numbers on the Big Number Line
Date: 1993-11-10
Location: Colts Neck Elementary School
Researcher: Professor Carolyn Maher

Transcriber(s): Yankelwitz, Dina
Verifier(s): Reid, Adrienne, Farhat, Marcelle
Date Transcribed: Spring 2009
Page: 6 of 9

49		Brian	... So, you would not count zero to one third as one third.	
50		RT1	Okay. Maybe let us stop for a moment. I know this is very interesting and I know we want to continue this. You want to say something else, Alan?	
51		Alan	What I am saying is. Here is a model of using thirds. Suppose that end is zero and that end is one. You are saying from there to there—this piece—really has no fraction value in the one third.	
52		Brian	There is no fraction value.	
53		Alan	You cannot put that over there, look, is has extra room. You only have three spaces—one, two, three—you have one third from zero to one third, two thirds from one third to two thirds, and three thirds area from two thirds to three thirds.	
54		RT1	Okay. Let us just hear from Meredith and then I want to do something else. We have lot of good ideas that we need to think about. Meredith, what is your comment?	
55		Meredith	Well, I put one third, two thirds, and then three thirds would equal one. And, then, I went from zero to two it would be one and one third , two and two thirds , and, then, one and three thirds.	
56		RT1	One and two thirds, right?	
57		Brian	There is no fraction value between zero and one third, because...	
58		Alan	If you have no value between zero and one third, then look, you eliminate that how many spaces would you have? Two.	

<p>Description: Equivalent names for the number named one (clip 3 of 4) Parent Tape: Number Line Models and Placing Numbers on the Big Number Line Date: 1993-11-10 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher</p>	<p>Transcriber(s): Yankelewitz, Dina Verifier(s): Reid, Adrienne, Farhat, Marcelle Date Transcribed: Spring 2009 Page: 7 of 9</p>
---	--

59		Brian	<p>[mumbles] What I would think would be that if you start on the lower number and then keep going up and until you hit that.</p> <p>Anything between there would be the one third and the two thirds right there. And, if you keep going up to there you will hit that and,</p> <p>that will be two thirds</p> <p>and if you put a bar right there it would count as one, two thirds between 1 would be three thirds.</p> <p>Because, like I was saying, if you started there at zero, then zero does not have value ...</p>	
60		RT1	<p>Okay. We need to sit down. Obviously, we have not convinced Bryan. Alan and Meredith have tried and not convinced Bryan. I wanted to give Sarah and Beth and Audra a chance to share their idea and if everyone listen a bit more, we will see what we are thinking in a few minutes.[<i>Sarah, Beth and Audra stand up and walk to overhead.</i>]</p>	
61		Audra	<p>We thought that we did not have to put anything else on the number line, because if we put this from zero to 1 and you would mark one third here because if you used a ruler here to measure it or something</p> <p>one third would go here, two thirds would go here,</p> <p>three thirds would go here,because the length will be the same as Cuisenaire rods or something.</p>	

<p>Description: Equivalent names for the number named one (clip 3 of 4) Parent Tape: Number Line Models and Placing Numbers on the Big Number Line Date: 1993-11-10 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher</p>	<p>Transcriber(s): Yankelewitz, Dina Verifier(s): Reid, Adrienne, Farhat, Marcelle Date Transcribed: Spring 2009 Page: 8 of 9</p>
---	--

62		RT1	What I am not clear about when I am looking up there, I am not sure, you wrote a number on top, and I thought we all agreed that we would write our number line with the numbers in the bottom. Where would you place the three-thirds?	
63		Audra	We would place it here [<i>Group puts three thirds slightly to the left of one.</i>]	
64		RT1	<p>Could you write it underneath the number line and tell us why you would place it there. Because, I think some of us are interested in where you would place it. [<i>Groups workstogether on placing the three thirds on the bottom of the line.</i>]</p> <p>And, you are telling me you would place it with 1 to the right of three-thirds? [<i>No verbal response from group.</i>] So this clearly defines where we have differences of opinions, right? Is that true? So, how many of you are agreeing that we should place 1 to the right of three thirds? How many of you believe that?</p>	
65		Students	[<i>Student response not on camera view.</i>]	
66		RT1	Oh. How many of you believe that it should go to the left of three-thirds?	
67		Students	[<i>One student on camera, Bryan, raises hand.</i>]	
68		RT1	How many of you believe it should go right on top of the one?	
69		Students	[<i>Nine students raise their hand.</i>]	
70		Audra	That's what we meant. We just could not get it right on top to fit.	
71		RT1	You meant to put it on top?	
72		Students	You just put it under it.	

<p>Description: Equivalent names for the number named one (clip 3 of 4) Parent Tape: Number Line Models and Placing Numbers on the Big Number Line Date: 1993-11-10 Location: Colts Neck Elementary School Researcher: Professor Carolyn Maher</p>	<p>Transcriber(s): Yankelewitz, Dina Verifier(s): Reid, Adrienne, Farhat, Marcelle Date Transcribed: Spring 2009 Page: 9 of 9</p>
---	--

73		RT1	<p>Oh, I see, you just could not fit it in. So, Jessica, how could they do it to put it by the one? [<i>Jessica walks up to overhead.</i>]</p> <p>You want to go show them how to do it? They meant the same thing, Okay. So, I am hearing that we have some agreement here then; you all agree that three thirds would go under one. It would go in the same spot. How many agree with that? [<i>Six students on camera raise their hands</i>] And, I would like to hear again why that would work, could you tell me Erin? Why you would put it there and not to the right or to the left? Any idea? Want to think about it?</p>	J.
74		Erin	I want to think about it a little more.	
75		RT1	Okay. James?	
76		James	I think one half and one half makes a whole and four—fourths would make a whole and three thirds would make a whole also, so it will be right on top of the one.	
77		RT1	Okay. Are you agreeing with that Jakki?	
78		Jakki	Yes.	
79		RT1	Some of you are nodding your heads. Okay. So, I am hearing some agreement on that and that is where you would place it	