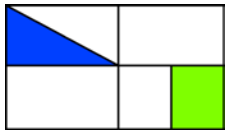
Elementary Mathematics Laboratory for incoming fifth graders
Park City Mathematics Institute
Tuesday, July 11, 2006

Seating Arrangement

Jessica								Maddie
Ally								Cozy
Sabrina								Holly
Brianna								Luke
Tori								Arthur
Paige								Britney
David	Vinnie	Rebecca	Sarah	Ben	Trevor	Michael	Sean	Autumn

July 11, 2006:

Problem:



What fraction of the big rectangle is the blue region?

What fraction of the big rectangle is the green region?

1	Autumn:	Would it be different if they count as one- Both of them
2		count as one?
3	Teacher:	What? The whole- The big rectangle is the whole.
4	Autumn:	Yeah, but does the green and the blue count as two?
5		Like t- are they together...
6	Teacher:	Don't put them together. Tell me what fraction the blue
7		is and what fraction the green is. Separately. *(To the*
8		*whole class:)* Be careful that you're reading the question
9		carefully. I see some answers that make me think
10		people didn't read the question carefully. You might
11		want to check with your partner and see if your partner
12		interpreted the question the same way you did.

13	Teacher:	Today I was pretty clear with you about what I wanted
14		you to consider to be the whole. So I want to see if
15		you, when you read the question, if you were careful
16		about that. And you might- It might have been
17		confusing, so let's read it and make sure that we're
18		clear about what the question's asking. Would
19		somebody be willing to read the problem? Don't tell us
20		the answer. Just read it and explain what you interpret
21		it to be saying so we can agree on the question before
22		we talk about its answer. Okay, Autumn. Can you read
23		it to us?
24	Autumn:	What fraction of the big rectangle is the blue region?
25		What fraction of the big rectangle is the green region?
26		Explain your answers.
27	Teacher:	Okay. So now can you tell us what you're interpreting
28		to be the big rectangle, Autumn?
29	Autumn:	The paper.
30	Teacher:	Come up and point. Show us the outline of the big
31		rectangle. Because that's one of the issues that's going
32		to be important to talk about today.
33	Autumn:	Okay.

Teacher: Do you think you can do that? Just tell us what you interpreted the big rectangle to refer to.

Autumn: The outline.

Teacher: Okay, that's what I intended is for you to look at the whole rectangle. Can you do it one more time with your finger?

Autumn: All the way- (*traces her finger around the big rectangle)*

Teacher: Okay.

Autumn: -around.

Teacher: Does everybody see what Autumn's referring to? So if you've considered other rectangles within that rectangle to be the whole, you would have different answers. But what we're talking about right now is calling that whole big thing the whole. The big rectangle, okay? Are we all set on that? So now what are we trying to do about the blue and the green? Can someone explain from what Autumn read? What are we trying to agree upon with the blue and the green areas? Luke?

Luke: How much area each covers.

Teacher: Good. Can you say that again?

Luke: How much area each covers.

Teacher: How much area of the big rectangle each one is. Okay? Does everyone agree with Luke about that? Does anyone not agree? Because- Let's make sure we're sort of agreeing as we move forward so that we know what we're talking about. That fine so far?