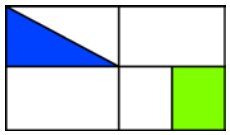
Seating Arrangement

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

July 11, 2006:

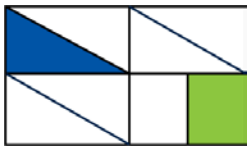
Problem:



What fraction of the big rectangle is the blue region?

What fraction of the big rectangle is the green region?

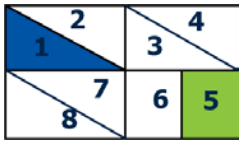
1	Teacher:	Would somebody be willing to tell us how you decided
2		on the answer to either the blue or the green? I don't
3		care which, but just one of them? How did you decide
4		what to call the fraction of the big rectangle taken up by
5		either the green region or the blue region? Somebody
6		willing- Art, would you like to tell us one of them?
7	Teacher:	Can you go up now and show us how you came up with
8		the eight? Because you started by talking about half
9		and think that it would be good for the class to see
10		what you're saying. Can everybody please practice
11		looking and listening more carefully than we have the
12		last couple days, so you can interpret what he's saying?
13		Go ahead.
14	Art:	I saw that it was half of this little rectangle here. (*Points*
15		*to the small top-left rectangle with the blue region.*)
16		And I divided the other ones in half. And this one was
17		already divided in half. (*Points to the small bottom-right*
18		*rectangle with the green region.*) And so I saw that it
19		was one-eighth.
20	Teacher:	Okay. I'm gonna give you a p- your own chart paper.
21		Come over here and can you just draw for us what you
22		were picturing? And then we can understand it better.
23		There's- And you're working on the blue, right?
24	Art:	Yes.
25	Teacher:	So go through it one more time and draw- just draw
26		what you were thinking about.
27	Art:	I saw that this one was half of this other one. (*Points to*
28		*the small top-left rectangle with the blue region.*) And
29		then I divided the other ones in half. (*Draws:*)



And this one was already divided in half (*Points to the small bottom-right rectangle with the green region*) and then saw that there was eight equal pieces and there-

Teacher: Can you count them out really- just clearly for us? One.

Art: One, two, three, four, five, six, seven, eight. (*Draws:*)



Teacher: Okay so then what did you decide?

Art: And then I decided that one- this triangle or whatever it is was the only one that was colored. (*Points to the blue region.*) And so there was eight other pieces and I put one-eighth.

Teacher: Okay. So let's have comments on Art's explanation. Do you have any questions about what he did or any comments about it? Rebecca, can you just quickly summarize how he decided it was one-eighth? What did he do?

Rebecca: He divided every square just like the first square.

Teacher: Into what?

Rebecca: Into a half. Like, divide every square in half.

Teacher: Uh-huh.

Rebecca: Like the first square- rectangle. And except the sixth and the five- sixth and fifth one, it was already divided, so we didn't need to do that. And so then he just counted every piece and saw what- like, how many numbers there were, and it was eight. And only one fraction of those eight was colored in blue, so it was one-eighth.

Teacher: Is that right?

Art: Uh-huh.

Teacher: Okay, does anyone disagree with what Art has put up there? Did anyone disagree that the blue region is one-eighth of the big rectangle?

Teacher: Okay. So now let's get someone to explain what fraction of the big region- the big rectangle is the green region. Because what Art explained is what fraction of the big rectangle the blue region is. Can someone explain what fraction of the big rectangle is the green region?

Teacher: Can you do it in a way that people who are a little confused think that they'll understand it? Do you want your own sheet?

Brianna: Yeah.

Teacher: Actually, let's move it up so people can see. There you go. There's yours.

Brianna: What I thought of the rectangle is- What I usually do-

Teacher: Can you talk just a little bit louder?

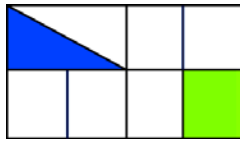
Brianna: Okay.

Teacher: Okay.

Brianna: What I usually do if I have a fraction like this and I don't really understand it, I take my pencil to see how long it is like this or like t- (*Measures the width of the bottom-right sections including the green region with the marker*) and see- and measure if it's the same exact length. That would equal a half. And there's eight equal pieces in all if you divided it all in half.

Teacher: Can you show us that?

Brianna: So there would be eight equal pieces. (*Draws:*)



		And this one's already in half like Art said. (*Points to the small top-left rectangle with the blue region*.) And there's eight equal pieces and one of them is shaded, so I just say one-eighth.
	Teacher:	Okay. So the parts of your explanation were that there were eight equal pieces and so you called it one-eighth?
	Brianna:	And one was shaded.