

## Transcript of Post-Instruction Interview: Jayden

### *First Problem*

- 1 Student: So here you have to find the whole number which would be right here because you are taking a third away. And one-third would be back to right here. So, that's one. And then so this would be  $\frac{2}{3}$  and this would be  $\frac{1}{3}$ . So you have to find what's between  $\frac{1}{3}$  and  $\frac{2}{3}$ . So between  $\frac{1}{3}$  and  $\frac{2}{3}$  you have to multiply how many intervals there are by two. So, you, this would actually be  $\frac{2}{6}$ . Because  $\frac{2}{6}$  that's between  $\frac{1}{3}$  and  $\frac{2}{3}$ .
- 2 Teacher: Okay. So if you changed  $\frac{1}{3}$  to sixths, what would it be?
- 3 Student:  $\frac{1}{3}$  to sixths would be -- oh. Ha, ha.  $\frac{1}{3}$  to sixths would be  $\frac{2}{3}$ . So I messed up there. So and then that would be -- oh. It would be  $\frac{3}{6}$  because  $\frac{2}{3}$  would be  $\frac{4}{6}$  and  $\frac{1}{3}$ 's  $\frac{2}{6}$ . So it would be  $\frac{3}{6}$ .
- 4 Teacher: What's another way to think of  $\frac{3}{6}$ ?
- 5 Student:  $\frac{1}{2}$ ,  $\frac{2}{4}$ .
- 6 Teacher: And when you look at that number line does it kind of make sense that that would be about a half?
- 7 Student: Yeah.
- 8 Teacher: Or would be a half?
- 9 Student: Yeah.
- 10 Teacher: Okay.
- 11 Student: Because zero and one is right there.

### *Second Problem*

- 12 Student: First you have to find the one for the whole number and there's one, two, three, and then three, two, one. And then, four. One, two, three. Okay. So one would be right here because it's in between both the -- it's in between 0 and 2. And so now we're going by fourths. So this would be  $\frac{1}{4}$ ,  $\frac{1}{4}$ . And this would be two -- yeah,  $\frac{2}{4}$ . And this is  $\frac{3}{4}$ . So then you have to find between  $\frac{2}{4}$  and  $\frac{3}{4}$ . So again you have to multiply the interval, uh, multiply the interval by two and the top number by two. So,  $\frac{2}{4}$  would become  $\frac{4}{8}$  which is a  $\frac{1}{2}$ , and then  $\frac{3}{4}$  would become  $\frac{6}{8}$ . So in between, um,  $\frac{4}{8}$  and  $\frac{6}{8}$  would be  $\frac{5}{8}$ .
- 13 Teacher: Okay. So what's the actual final answer for that box?
- 14 Student:  $\frac{5}{8}$ .

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15 Teacher: Okay. And is  $\frac{5}{8}$  between one and two?

16 Student: Uh, Yeah. Wait. Eh. Yeah, it's between -- one and then two, three, four,  $\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$ ,  $\frac{4}{4}$ . Um. Oh, I messed up again. It would --

17 Teacher: So you're five -- so figuring out your intervals and all that --

18 Student: Mm-hmm.

19 Teacher: -- nice job. You figured out that it was eighths. The only think I want you to think about is if you're between zero and one you would have five-eighths. But you're between one and two.

20 Student: Oh. You have to add the one. So it would be actually one and five-eighths would be the final answer.

21 Teacher: All right.

### *Third Problem*

22 Student: So, it's already at the whole so you don't have to find the whole. So let's count our intervals. One, two, three, four. So we are going by fourths. Okay. One, that would be  $\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$  and this would be  $\frac{4}{4}$  which equals three. So then again, you have to find what's between the two fractions. And how you do that is you have to multiply the interval by two. So  $\frac{1}{4}$  would become  $\frac{2}{8}$ ,  $\frac{2}{4}$  would become  $\frac{4}{8}$  and  $\frac{3}{4}$  would become  $\frac{6}{8}$ . So between two and four would be two and three-eighths.

23 Teacher: All right, then your last box.

24 Student: Oh, my last box, yeah. I didn't see that one. Okay, so you have to find between  $\frac{6}{8}$  and  $\frac{8}{8}$ . So, then you have to -- let's say between  $\frac{6}{8}$  and  $\frac{8}{8}$  would be two and seven-eighths.

25 Teacher: Okay. Go ahead and stop.