## Following Up With Students-Part 2

[See what Jennifer Mossotti's students have discussed and what conclusions they have drawn about the State Fair Task]

Nietzsche: Because he only bought one ticket so it has to be $\$ 8$ because everybody spent more than $\$ 8$.

Ejub:
Nietzsche: Yeah.
Mrs. Mossotti: I understand what you're saying how you think it's in the middle here. So that's like a $\$ 0.50$ mark. But how do you know that when you go backwards you started off spending $\$ 8$ ? How do you know it was not $\$ 7.75$ ? How do you it was exactly $\$ 8$ to get in, and then each ticket was $\$ 0.50$ ? I don't know how you know that still.

Nietzsche: $\quad \$ 8$. But he only bought one ticket which was $\$ 0.50$.
Mrs. Mossotti: Well how do you know that one ticket was $\$ 0.50$ ?
Nietzsche: Because everybody paid it. You have to at least pay $\$ 8$ to get in. That's what everybody did.

Mrs. Mossotti: Why not \$7.75?
Nietzsche: $\quad$ Because if they did pay $\$ 7.75$ they would have paid like $\$ 8.25$ to get in. And then the point would have been much closer to eight.

Mrs. Mossotti: AJ, what are you thinking? Do you agree with him? Do you disagree with him? Are you not sure?

AJ: I agree. Well, I'm not sure but I agree with what you're saying. I don't have any other ideas.

Mrs. Mossotti: So what I want to know is, if that's the case, I want you to prove that this should be here. And this should be there.

Nietzsche: What do you mean Miss?
Mrs. Mossotti: Well if you said it starts here, and then the first ticket is $\$ 0.50$, which brings me here. Does that make this number come out to this? And this number come out this? When you buy this amount of tickets or this amount of tickets? I don't know.

Nietzsche: Eight dollars right?

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| Mrs. Mossotti: | So you told me it costs how much to get in. |
| :---: | :---: |
| Nietzsche: | \$8. |
| Mrs. Mossotti: | And then the tickets are? |
| Nietzsche: | \$0.50 |
| Mrs. Mossotti: | So is that going to make this at this price? And this at that price? Knowing what you just said. Prove it to me with math. Or somehow on the graph. |
| Nietzsche: | Yeah Miss it is. |
| Mrs. Mossotti: | Well you got to prove it to me. I'm going to be back. |
| [Second visit to Nietzsche, Ejub, and AJ] |  |
| Nietzsche: | So first, they paid a $\$ 8$ entry fee. Then if you do that, $\$ 0.50$, it'll give you $\$ 6.50$. I think it's $\$ 2.50$. $\$ 2.00 \$ 2.50$. $\$ 2.00 \$ 2.50$. |
| Mrs. Mossotti: | Can you count up those $\$ 0.50$ more and I'm going to tally them on my fingers. Do that again. So you start where? |
| Nietzsche: | \$8. |
| Mrs. Mossotti: | OK and then what? |
| Nietzsche: | \$0.50. \$1.00 \$1.50 \$2.00 \$2.50. \$3.00. \$3.50. \$4.00. So \$4.00. |
| Mrs. Mossotti: | So what have I-- |
| Ejub: | Eight. |
| Mrs. Mossotti: | Eight what? |
| Ejub: | Tickets. |
| Mrs. Mossotti: | So those eight tickets he counted by what? |
| Ejub: | \$0.50 |
| Mrs. Mossotti: | So does that make sense? Will that work for this one too? Hold on. I want you to figure it out based on what he did. Is that going to work for this? So if I start at a certain amount and then I keep counting by whats? |

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Ejub:
Mrs. Mossotti: Is that going to make this amount of tickets come out that price? I don't know. I hope so. It sounds OK. But if it doesn't work here, then something's wrong. I don't know.

