## Determining What Students Are Thinking-Part 2

[Michelle Musumeci questions her eighth grade algebra students to help them clarify their thinking]

Mrs. Musumeci:

D'Angelo:
Mrs. Musumeci:

Eusebia:

D'Angelo:

Mrs. Musumeci:

Eusebia:
D'Angelo:
Mrs. Musumeci:

D'Angelo:
Eusebia:
D'Angelo:
Mrs. Musumeci:

D'Angelo:
Eusebia:
For each one?
Mrs. Musumeci:
D'Angelo: same amount. third. money is that?

Ten times ten is 100 . 15 times 10 shirts?

Oh then that'd be $\$ 200$.

No.

Right. My other question actually is 10 shirts and 15 shirts cost the

No. We were saying technically because if that's your first order.
Right so then how come between 15 and 20 it increased, but between 10 and 15 it didn't?

Because you have add the plus 50 for the first order and then the second order you didn't.

These are all your-- these right here are all your after orders. Like how it said this would be your first order and your second, then

OK. So if I paid $\$ 50$ and then I do $\$ 10$ times 10 shirts, how much

Then plus the 50 that's 150 .
OK that's $\$ 1.50$. So now, what if I pay that $\$ 50$ fee and then I do

Yeah. So you have to pay the $\$ 50$ for the second one too?
So did you want us to--
So I want to know what does it cost for 15 shirts, and if you follow this, you're telling me it cost $\$ 200$ for 15 shirts.

Wait, did you want us to do the $\$ 50$ fee for each one?

Then this is the right answer?

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| Mrs. Musumeci: | So you're telling me that it costs $\$ 150$ for 15 shirts then. |
| :--- | :--- |
| Eusebia: | Oh, that was your first order? |
| D'Angelo: | Like if 15 was your first order? |
| Mrs. Musumeci: | If 15 was your first order-- |
| D'Angelo: | No. Then it wouldn't. |
| Eusebia: | Then it would be 200. |
| Mrs. Musumeci: | OK. But see between here and here, you did increase it. So it was <br> like you're doing two different things I think. Because here-- |
| D'Angelo: | No, this is your first order. This is your first order. So minus the <br> \$50 it would just be-- |
| Mrs. Musumeci: | OK. I see what you're saying now. So you're kind of saying, all <br> right, we already pay the fee for 10 . I want you to tell me-- you're <br> making a table to organize your info, but I want you to tell me how <br> much if each one of those was your first order. |
| Eusebia: | OK. So this-- |
| Mrs. Musumeci: | OK. |

