

Episode 1.1

The following problem was given in class:

A student has a snow-shoveling business, and charges \$100 per customer for unlimited shoveling. However, he discounts the price by \$1 per customer for each customer over 20. What is the largest amount he can earn?

The following dialogue occurred between the teacher and one of the small working groups that, by means not captured on the videotape, obtained $x = 40$, the correct number of extra customers that will yield maximum earnings.

1. T: If x is 40, how do I figure out the amount of money that I made?
2. S: I don't know.
3. T: How do I, if I have 20 customers and I have 100 dollars and I charge them 100 dollars.
4. S: Wait, what? 40 is the extra he got.
5. T: 40 is x , what does that mean?
6. S: Yeah, x is... I thought x was like the extra money... Oh, you subtract it from the customers!
7. T: Right. And so if I...
8. S: That means you have 40 customers?
9. T: 40 extra customers.