

## 6th\_Math\_Percent\_Classroom

- Teacher: Today we're going to work on you guys being able to figure out the tax, a discount, and the tip that you would need at a restaurant. Yesterday, you guys did this. Look familiar? That's your rubric that you guys came up with. You guys said that even if you get one or two computation errors, that you can still get advanced.
- Student 1: Wait, a computation error isn't like you have the totally wrong idea. It's just you did the work right but you got it wrong?
- Teacher: Correct. You did the right step, you multiplied by the correct number, you knew you had to cross multiply. Whatever the step is, is correct but you went, "Five times five. Twenty!" That's a computation error. Okay? Or your decimal, you put it in the wrong spot or something. That's a computation error. Are you guys still okay with that?
- All right. You also said that in order to have an advanced, you have to write a sentence for the answer to all of your word problems. You're not really ... Your whole situation is a word problem ...
- Student 1: Is this the menu one?
- Teacher: This is the menu one ... I did! I gave you a miniature version because the real [00:01:40] menu is like five pages. You guys are going to be there for a half an hour just figuring out what you want to eat. I just did a couple pages. Got some pastas, got some salads.
- Student 2: Is there fettuccine alfredo on there?
- Student 3: Did you get dessert?
- Teacher: There wasn't any dessert on the menu! I think they have a separate dessert menu.
- Student 1: No, it's like [00:02:00] one of the things where they give you ...
- Teacher: Oh yeah, they bring out the tray and they go, "Dessert?" You're like, "I'll take one of everything."
- In terms of the second one. The rubric, it says, "Answer to word problems. Answer in a sentence." For this situation, what would your sentence be? It doesn't actually have a question in words at the top. What are you guys coming up with?
- Student: What do we want to eat?

Teacher: What are you calculating with that, though?

Student: The discount.

Teacher: The discount. What would your sentence be?

Student: The discount ...

Teacher: The discount is ... two dollars and fifty five cents.

The same thing for the tax and the tip, okay? You guys okay with that?

"Shows all your work even if you use the calculator." Easy enough? That's pretty easy, right?

Then you said, "A reasonable estimate for the tip." What does that mean?

Student: You don't want ... If you have four dollar and twenty-one cents, you have to round up or whatever your estimate will be.

Teacher: If it was four twenty-five, what would you leave?

Student: Five dollars.

Teacher: Five dollar. Why?

Student: You wouldn't want to leave change on the table.

Teacher: You don't want to leave change on the table. Why would you choose five dollars instead of four dollars?

Student: I don't know. To be generous.

Teacher: Be generous! Okay, that's totally fine. Like we were discussing ...

Student 1: It's up to you.

Teacher: Yeah, exactly. Tip is up to you. It depends on how you feel you should honor your server for what they did for you that day. Maybe you're at [00:04:00] [Ah-sah-ge-o-z 00:04:02] and you're like, "My server is top shape. She's good, so I'm going to leave that extra seventy-five cents." Or, "Took so long. She was so rude. I'm going to give her four dollars."

Student 4: Unless you're broke.

Teacher: Unless you're broke then you tell your mom to leave the tip. "Mom, go ahead Mom." All right.

In terms of proficiency, the main difference is you have more computation errors. Then you're not writing sentences and you just are lazy and just go, "I'm just going to leave four twenty-five because I don't want to anymore math. I'm going to leave four twenty-five."

Student 4: If you're lazy then you leave the estimated amount.

Teacher: Then you still have to do the work.

Student 5: You don't have to leave tip.

Teacher: That would be really rude. Oh no, you're just saying for takeout? Oh you're just going to call [Ah-sah-ge-o-z 00:04:57], then you don't have to leave tip? Just pick it up and eat at home?

Student 5: Yeah.

Teacher: Hopefully after this, maybe you'll be able to help your parents out with the tip and stuff when you guys go out? You do this on your tables. You guys have a little packet there of tickets.

It was just random. They're all different. Spread them out so you have all of them laid out in front of you. You'll notice that your tips are all one color. Your discounts and your percent are all one color. So [00:06:00] ... Let's say you guys order chicken alfredo. You get a drink and then you have Caesar salad. That's just me. My partner has to get something too. You're putting both your orders on that paper. "student" is my partner. "student" wants raviolis, he wants soup, and then he's going to have a soda. Diet soda. We add all of it up and maybe between the two of us, I'm just guessing, it comes to sixty three ... It's Tuesday. Let's say it comes to this. That's the amount the food is going to cost. You're going to get to pick one discount. For today only, you get a discount on your [Ah-sah-ge-o-z 00:06:59] meal.

You're going to turn your tickets over and you're going to pick one discount. Flip them over now, so you know which one is which. "student", pick me a discount.

Student: Twenty percent.

Teacher: I would write twenty percent discount. Do you see where you would put that, in the thingy on the worksheet? Not you, you never pick yet. That's me and "student". Just wait because you guys have to do your own once you figure out what you want to eat.

Twenty percent discount. I figure out what my discount is. What do you do with the discount?

Student : You multiply by the total.

Teacher: Okay, so I'm going to multiply this by my total [00:08:00]. What do I do once I get it?

Student : You subtract it.

Teacher: I subtract it. I get a new amount over here. Let's say it comes to, I'm guessing, I don't want to give you guys exact numbers. Forty-nine dollars and eighty-two cents. I'm guessing. What do I need to do now? That's the new price of my food. Tax! Pick a tax ... Eight percent. Must be California. Eight percent tax.

Student 6: It can't be zero?

Teacher: No, we're not in Oregon. Sorry.

You find your tax. What do you do with it?

Student : You add it.

Teacher: You add it.

Student 1: You multiply it ...

Teacher: Well yeah, I have to multiply it first then add it.

Student 1: Oh, so you do that for the discount too.

Teacher: Yeah, on the discount. Do it on the discount.

Student 1: But you subtract it.

Teacher: The discount is subtracted. Tax. I find my food total. This is going to be my food total. You eat all your food, you paid your bill, what's up next? Tip.

Then I got this. What do you base your tip on? The first one. This is what you base your tip off of. The original amount. You don't go, "Oh, I got a discount. I'm just going to give less tip now." Unless you want to be rude. They know this person only left a little bit or [00:10:00] "Oh yeah! I like this guy."

You want to base your tip off the original amount, not this. Not the discounted price. Okay? Okay, "student". How was your server today? How much was your tip?

Student : Twenty percent.

Teacher: Oh okay, must've been pretty good. Then you would find your twenty percent. Do you guys see on your paper, it says, "percent tip." You need to actually show what you would leave. You're going to write your percent tip and you're going to find it, right? That's where this comes in. "Reasonable estimate for the tip." You need to tell us how much you're going to leave for your tip. Write a sentence. If it was four dollars and thirty-five cents, "student" would've wrote, "I will leave five-dollar tip." That's your sentence. Make sure you guys do that.

You guys said for an advanced, you've got to do a reasonable estimate and you have to write a sentence.

Student 6: Is this a test?

Teacher: Did I say test? You know me and my words, always getting mixed up. For this lesson, you guys have to do that. Let's try not to take thirty minutes to choose your food.

Student 1: We don't have thirty minutes.

Teacher: I know, right? I left a space for you to do this twice. The second time you do it, you're going to pick new tickets and choose new items. Fettuccine junk, I'm going to have something else this time.

Student 1: That's my favorite.

Teacher: Choose something else, girl ...[00:12:00] ... First time, get it with chicken. Next time, get it with shrimp or something. You're going to do it two times. I recommend you order more than one item. At least get a drink with it. You have to have a main dish and salad doesn't count, unless you're on a diet. You shouldn't be on a diet, you're only sixty-seven pounds.

Student 6: Sixty-nine.

Teacher: Oh, sorry. You need more pasta.

You're putting your order and "student's" order.

Student 6: Is [inaudible 00:12:52] water fancy water?

Teacher: Yes. I recommend you just drink the water you have on the table because it's free.

Was that the highest? "student" and "student" had a really good idea. They actually picked their tickets already and wrote it on the paper, so it's ready to go. They got their percentages ready. They're good. They're ready to go.

"student" and I had dinner together. I know. It was "students" treat, that's why I ordered plenty ... [crosstalk 00:13:58] ... [00:14:00].

Put them together. [crosstalk 00:14:19].

Did you get your fettuccine alfredo? With what, the broccoli?

That's yours? That's just yours?

Student 7: That's all together.

Teacher: That's all together.

Okay, and your discount is twenty-five percent. Oh, good discount!

I guess I didn't explain it well enough. I'm getting a lot of the same question. Your paper should have both of your food totals on it. It's not [00:16:00], "student" does his own and then "student" does his own. You want both of your food on one paper. Where it says food total, is that just "student's" food? No, it's "student's" and "student's" food where it says food total.

Student 7: Your order is combined?

Teacher: Your order is combined. You're sitting at the same table. Your serve is making one check for the two of you. It's not "student" does his own thing, "student" does his own thing. Once "student" gets his total, he can give it to "student" and he puts it on his paper or you can do the whole thing together. I got asked that four times, so I guess I didn't explain it well enough. Does that make sense now? We're good?

Do you each do your own discount? No. You have the same discount. You should end up with the same answers because you're using the same totals. All right. Go.

Branching out, trying something new. You guys didn't write any sentences.

Don't forget to do that, the highlighted part ...[00:18:00] ... [crosstalk 00:18:47].

Percent of [crosstalk 00:19:25] ... [00:20:00] ... This is thirty-nine seventy-two ... Nine dollars and ninety-four cents ... [00:22:00] ... You're saying [crosstalk 00:22:58] ... This is actually thirty-nine eighty. You're going to do the same thing you just did, except what goes over here?

[00:24:00] ... You guys pau? Bring your stuff.

Five tickets. You can't wait seven minutes?

You don't have to bring the tickets. They have the tickets already.

Check with each other.

What did you do? You multiplied by point four [crosstalk 00:25:40] ... [00:26:00]  
... Oh okay. When you did the second [crosstalk 00:26:09] ... Good catch.

He's making you pay? You know he has fewer bucks than you do because he always has to go to the bathroom. You couldn't wait seven minutes, you had to go.

Okay, did you get it? It's nine ninety-five? How do you find tax? You subtract [crosstalk 00:27:34] ... What is it? What tax did you guys come up with? ... How do you find tax? Oh okay [00:28:00].

Make sure you have your sentences.

I'm going to collect it. That's your ticket out the door. Make sure your name is on it.

All right! Pencils down, eyes over here. Okay, I need you to ... That is your ticket out the door. I want to see what you have done. Some of you only got one of them done, some of you [00:30:00] got two. Some of you got two and a half done. Yeah, they started on a third one. The four of them had a girl's night out. Movie after. You guys just talk story. Menchies is expensive too.

Your tickets can go back inside of the baggies please. The menu. I actually don't want you to leave the menu there because everybody doesn't get to take the menu. You know it's true. Out the door, you can give me your menu and your worksheet.

Who thinks ... Let me see ... "I can do this," or "My mom is all on her own. I can't do this." Let's say you go to [00:31:08], could you figure out your tax, tip, and discount? "I could do it all by myself." "I might need a little help," or "Mom's on her own." Most of you could do it. Some of you, mom's on her own ... He's a bad teacher? He's like, "I got this. You don't go it? Oh well." That's teamwork.

Leave your tickets. Stay there. I will see you guys in science later. [00:32:00].

Did you put the menu over there?