Algebra/Geometry Institute Summer 2006

Lesson Plan 2: Finding Sales Tax

Faculty Name: Emily Hatcher
School: Grenada Middle School, Grenada, MS
Grade Level: 7th

1. Teaching objective(s)
    - 1m. Solve real-life problems involving sales tax, discount, and simple interest.
    - This lesson will focus on problems involving sales tax.

2. Instructional Activities

- The teacher will begin the class with a five problem review on adding and multiplying decimals. (See Attachment 1)

- The teacher will go over each problem with the students. The teacher will call a student to the overhead to show how they solved each problem.

- The teacher will start a discussion with students by asking them what they know about sales tax. The teacher will discuss with the students that sales tax is a tax that is added on to the retail price of an item that is purchased. The teacher will discuss retail price with those students who are not familiar with the term. The teacher will discuss with the students that the sales tax in the state of Mississippi is 7%. The teacher will discuss that 7% sales tax means that it is 7% for every one dollar spent, which means that it is .07 added to every dollar you spend.

- The teacher will explain to the students that in order to find the amount of state sales tax on an item, multiply the cost of the item by the tax rate and round to the nearest cent. The teacher will also discuss that tax rate is expressed as a percent and should be changed to a decimal before multiplying.

    tax = cost of item • tax rate

- The teacher will explain to the students that in order to find the total cost of the item including sales tax, add the amount of tax to the cost of the item.

    total cost = cost of item + tax

- The teacher will work an example with the students.

    Example: William is buying a new basketball from the local sporting-goods store. The basketball costs $34. If the sales tax rate is 7% in his state, what is the total cost of the basketball?

First find the amount of tax.

tax = cost of item • tax rate
= 34 • .07
= 2.38

The amount of tax is $2.38.

Then find the total cost.

total cost = cost of item + tax
= 34 + 2.38
= 36.38

The total cost of the basketball is $36.38.

- The teacher will work more examples with the students like the previous example. The teacher will answer any questions that the students have about finding sales tax and total cost.

- The teacher will give the students an activity sheet that will be checked for understanding. The teacher will work the first problem with the students and then allow them to work individually. (See Attachment 2)

- The teacher will have the students arrange their desks so they can work in groups. The teacher will put the students into groups of four.

- The teacher will give each group a menu from a local restaurant, a sheet of white copy paper, and some colored pencils. The teacher will explain to the students that they are to each choose an item from the menu that they would like to purchase. The teacher will explain that they should each write down what they would like to purchase and the price of the item(s). The teacher will explain to the students that they are to find the total of their items and write the sum on their sheet of paper. The teacher will tell the students that once they have found their total, they need to include sales tax of 8%. The teacher will tell the students to write down how much sales tax will be for the sum of their items and then find the total cost. The teacher will explain to the students that they have colored pencils to use to make their project colorful if they choose to do so.

- Once all groups finish their project, the teacher will have each group stand up and explain their project. Once each group has shared, the teacher will have students display their project on the bulletin board in the classroom.

3. Materials

- Overhead projector
- Pencil
- Notebook
- Menus from a local restaurant
- White copy paper
- Colored pencils
- Attachment 1
- Attachment 2

Resources

- Website: www.mde.k12.ms.us/docs/Math_Framework_2006.pdf
- Textbook: Glencoe Mathematics; The McGraw-Hill Companies. Copyright 2001.
- Buckle Down Mississippi MCT; Buckle Down Publishing. Copyright 2005.

4. Assessment

- Teacher observation of student participation.
- The teacher will observe students as they work in their seats.
- Performance assessment: The teacher will allow each group to explain their project to the class.

Attachment 1

Five Problem Review

Solve each problem by adding or multiplying.

1. 893.45 + 78.961 =

2. 54.34 + 873.87 =

3. 45.3 • 2.34 =

4. 0.98 • 55 =

5. 10.4 • 0.89 =

Attachment 2

Activity Sheet

Solve each problem

1. What is the total cost of a compact disc that costs $14.99 plus a 5% state sales tax? _____

2. At the bike shop, Jason is buying a new bike that costs $215. If the sales tax rate in his state is 7%, how much tax will Jason have to pay on the bike? _____

3. Jan is on vacation in a state where the sales tax is 8%. She buys a coffee mug that costs $8.99. With the tax added, what is the total cost of the coffee mug? _____

4. Russ is buying a stereo that costs $699. If the tax rate in Russ' state is 3%, how much tax will he have to pay on the stereo?
   _____

5. Cooper is buying some items that cost $56.90 altogether. If there is a 7% sales tax rate in Cooper's state, what is the total cost of the items?
   _____