

## Comparing and Scaling Teaching Aid 3.1. Introduction

### Introduction to Problem 3.1: Using Percents: What is the Tax?

When we buy something in a store, we often pay sales tax on the purchase price. For the sales tax, we might see percents such as 5%, 6.2%, or 8%. These are the rates by which the sales price is increased.

A sales tax of 6% means that for every dollar an item costs, a person needs to pay an additional 6 cents. That is, 6 cents for every 100 cents of an item purchased, or \$0.06 for every dollar. This is tax money collected by states. For example, with 6% tax:

Item purchased for \$1.00  
Sales tax is 6% of \$1.00 or \$0.06  
Total cost \$1.06

**Note:** When a percent calculation for sales tax does not come out to a whole number of cents, the standard practice is to round up the tax to the next penny.

Another way to think about this is to remember that \$1.00 is 100 pennies.

$$\begin{aligned} 100 \text{ pennies} + (6\% \text{ of } 100) &= 100 \text{ pennies} + 6 \text{ pennies} \\ &= 106 \text{ pennies} \\ &= \$1.06 \end{aligned}$$