

Impossible After-Sales-Tax Costs

David L. Farnsworth

Rochester Institute of Technology

In many states, a combined state and local sales tax is imposed on the selling price of taxable items and services. Our initial question is: Are there any impossible final costs of an item or service, including the sales tax? After answering this question in the affirmative, we examine and explain the mathematics involved and suggest a practical use in accounting. This sets the stage for a discussion of the use of this topic in teaching. Students need only have a basic knowledge of multiplication, percentages, and money. In teaching, the material on impossible total costs can be offered as a curiosity, a short example or exercise, or a full topic for an individual student, a group, or the whole class, as explored and discussed.

Keywords: sales tax, percentages, money, forensic accounting



David L. Farnsworth is professor emeritus in the School of Mathematics and Statistics at Rochester Institute of Technology in Rochester, New York. His areas of professional interest include geometry, statistics, and the Moore teaching method.