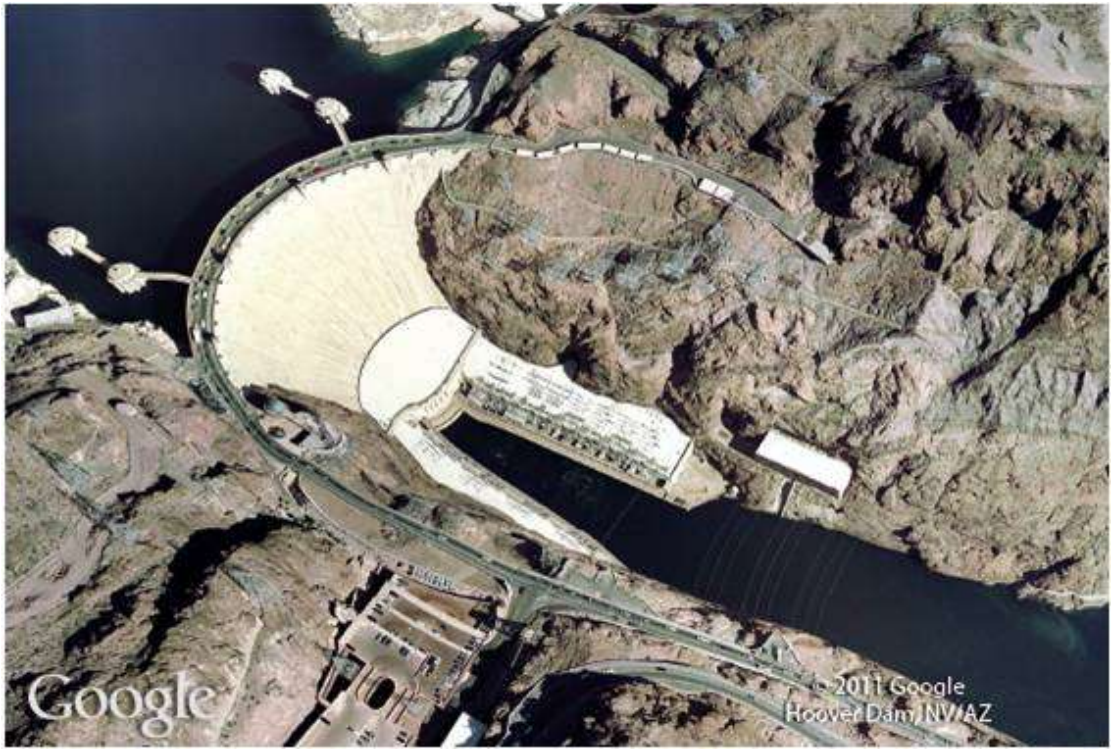
# Percent

7

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SECTION 7.4

# Sales Tax and Commission

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# Objectives

**A** Solve application problems involving sales tax.

**B** Solve application problems involving commission.

# A Sales Tax

# Example 1

Suppose the sales tax rate in Mississippi is 6% of the purchase price. If the price of a refrigerator is $550, how much sales tax must be paid?

Solution:

Because the sales tax is 6% of the purchase price, and the purchase price is $550, the problem can be restated as:

What is 6% of $550?

# Example 1 – *Solution*

cont'd

We solve this problem, by translating it into an equation:

$$\underset{\downarrow\ \downarrow\ \downarrow\ \downarrow\ \downarrow}{\textit{What is 6\% of \$550?}}$$

$$n = 0.06 \cdot 550$$

$$n = 33$$

The sales tax is $33.

The total price of the refrigerator would be

$$\underset{\downarrow}{\text{Purchase price}} \quad \underset{\downarrow}{\text{Sales tax}} \quad \underset{\downarrow}{\text{Total price}}$$

$$\$550 + \$33 = \$583$$

# B Commission

# Commission

Many salespeople work on a *commission* basis. That is, their earnings are a percentage of the amount they sell.

The *commission rate* is a percent, and the actual commission they receive is a dollar amount.

# Example 4

A real estate agent gets 3% of the price of each house she sells. If she sells a house for $289,500, how much money does she earn?

Solution:

The commission is 3% of the price of the house, which is $289,500.

We restate the problem as:

*What is* 3% *of* $289,500?

$$n = 0.03 \cdot 289{,}500$$

$$n = 8{,}685$$

The commission is $8,685.