

Reteach

Sales Tax, Tips, and Markup

Sales Tax is a percent of the purchase price and is an amount paid in addition to the purchase price.

Tip, or **gratuity**, is a small amount of money in return for service. The amount a store increases the price of an item by is called the **markup**.

Example 1

SOCCKER Find the total cost of a \$17.75 soccer ball if the sales tax is 6%.

Method 1

First, find the sales tax.

$$6\% \text{ of } \$17.75 = 0.06 \cdot 17.75 \\ \approx 1.07$$

The sales tax is \$1.07.

Next, add the sales tax to the regular price.

$$1.07 + 17.75 = 18.82$$

The total cost of the soccer ball is \$18.82.

Method 2

$$100\% + 6\% = 106\% \quad \text{Add the percent of tax to 100\%.}$$

The total cost is 106% of the regular price.

$$106\% \text{ of } \$17.75 = 1.06 \cdot 17.75 \\ \approx 18.82$$

Example 2

MEAL A customer wants to leave a 15% tip on a bill for \$18.50 at a restaurant.

Method 1 Add tip to regular price.

First, find the tip.

$$15\% \text{ of } \$18.50 = 0.15 \cdot 18.50 \\ = 2.78$$

Next, add the tip to the bill total.

$$\$18.50 + \$2.78 = \$21.28$$

The total cost of the bill is \$21.28.

Method 2 Add the percent of tip to 100%.

$$100\% + 15\% = 115\% \quad \text{Add the percent of tip to 100\%.}$$

The total cost is 115% of the bill.

$$115\% \text{ of } \$18.50 = 1.15 \cdot 18.50 \\ = 21.28$$

Exercises

Find the total cost to the nearest cent.

1. \$22.95 shirt, 6% tax
\$24.33

2. \$24 lunch, 15% tip
\$27.60

3. \$10.85 book, 4% tax
\$11.28

4. \$97.55 business breakfast, 18% tip
\$115.11

5. \$59.99 DVD box set, 6.5% tax
\$63.89

6. \$37.65 dinner, 15% tip
\$43.30