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Module 7 Ratio, Proportion, and Percent
Lesson 5 Percent Proportions

# Independent Practice 

Use the percent proportion to write each fraction as a percent.

1. $\frac{3}{10}$
2. $\frac{2}{5}$
3. $\frac{1}{20}$
4. Mindy collected 40 apples at a farm festival. Her mom used 24 of the apples to make apple pies. What percent of Mindy's apples was used to make pies?

## Estimate.

5. $18 \%$ of 25
6. $92 \%$ of 500
7. $33 \%$ of 610

## Solve.

8. Gia bought sneakers that cost $\$ 59$. Estimate the amount of sales tax she paid if the sales tax in her state is $5 \%$. Then, find the actual amount.
9. For lunch, Gary ordered a turkey sandwich for $\$ 6$ and an iced tea for $\$ 1.50$.
a. He wants to leave the waiter a $20 \%$ tip. How much gratuity should Gary leave?
b. Gary has to pay $4 \%$ tax on his lunch. How much tax will he pay?
10. Charity makes and sells candles. The markup is $150 \%$ of what it costs her to make them. It costs her $\$ 2.80$ to make a small candle and $\$ 3.50$ to make a large candle. Find the selling price of each size of candle.
11. In the fall, the manager of a clothing store sells the remaining summer clothes for $80 \%$ off. Graham bought a pair of shorts originally marked $\$ 38$. What is the discount? How much will he pay for the shorts?

## Journal

1. Tell how the percent proportion is different than other proportions. Then, explain how to use the percent proportion to write $\frac{3}{4}$ as a percent.
2. Explain why a markup can be greater than $100 \%$, but a discount can not be.
3. The markup on a book is $90 \%$ of what it cost to produce the book, which was $\$ 3.20$. Dylan said that means the book will sell for $\$ 2.88$. What error did Dylan make? How much will the book sell for?
4. When will a discount equal the new selling price of an item? When will a discount be greater than the new selling price of an item? Use examples in your explanations.

## Cumulative Review

1. The perimeter of the large square is 16 inches.

The perimeter of the small square is 8 inches. Find the area of the shaded region.

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## Evaluate.

2. $\sqrt{900}-3^{2}$
3. $25^{2}+1^{2}$

Find the decimal and percent equivalents.
4. $\frac{9}{20}$
5. $\frac{7}{60}$

Determine if the ratios are in proportion.
6. $\frac{10}{12}$ and $\frac{20}{24}$
7. $\frac{3}{4}$ and $\frac{6}{7}$
8. Alisa typed 50 words in two minutes while Jeremy typed 90 words in three minutes. Use unit rates to determine who typed at a faster rate.

## Additional Work Area

