

SECTION

6A

Ready to Go On? Skills Intervention

6-4 Percent of a Number

To find the percent of a number, use either a proportion or equivalent decimals. Both methods will result in the same answer. To find 6% of 24, use either method:

Proportion

$$\frac{6}{100} = \frac{n}{24}$$

$$1.44 = n$$

Equivalent Decimal

$$0.06 \cdot 24 = n$$

$$1.44 = n$$

Using Proportions to Find Percents of Numbers

Find 23% of 60.

$$\frac{23}{100} = \frac{\quad}{\quad}$$

$$23 \cdot \quad = 100 \cdot \quad$$

$$\quad = 100n$$

$$\frac{1,380}{\quad} = \frac{100n}{\quad}$$

$$\quad = n$$

$\frac{23}{100}$ is equal to what fraction?

Write the cross products.

Multiply.

Divide each side by _____.

Solve for n .

23% of 60 is _____.

Using Decimal Equivalents to Find Percents of Numbers

Find 22% of 48.

$$22\% \text{ of } 48 = \quad \cdot 48$$

$$= \quad$$

Write 22% as a decimal.

Multiply.

22% of 48 is _____.

Estimate to check whether your answer is reasonable.

Since 25% of 48 = ____, and 22% of 48 is _____, then

_____ reasonable.

Population Application

The total population of Charlottesville, Virginia, is 40,512. The approximate number of people who live in apartments is 41% of the total population. What is the approximate number of people who live in apartments to the nearest whole number?

Find 41% of _____.

$$\quad \cdot 40,512 = \quad$$

Write 41% as a decimal. Find the product.

The approximate number of people who live in apartments in Charlottesville, Virginia, is _____.

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Ready to Go On? Problem Solving Intervention

6-4 Percent of a Number

When you solve problems with percents, sometimes you can decide when you will compute the percent.

You want to buy 3 CDs for \$17 each, 1 CD for \$19, and 2 CD racks for \$25 each. Will \$130 be enough if the sales tax is 7%?

Understand the Problem

1. How do you find the cost of something you're buying if there's a 7% sales tax?

Make a Plan

2. Why might it be difficult to solve this problem using estimation?

3. If the total price is T , how could you use a proportion to calculate 7%?

4. If the total price is T , how could you use a decimal equivalent to calculate 7%?

Solve

5. What is the total price of the items without tax?
6. Use a method from Exercise 3 or 4 to find the tax.
7. What is the total cost including tax? Will \$130 be enough?

Check

8. Use an estimate to show that your answer makes sense.

Solve

9. Would \$130 be enough if the sales tax were 8%? Explain.
