

LESSON
7 **Proportional Relationships**
Reading Strategies: Find a Pattern

You can use decimals to find the percent of a number.

Find 35% of 80.

35% of 80 means 35% times 80.

Step 1: Change the percent to a decimal by moving the decimal point two places to the left. 35% → 0.35

Step 2: Multiply the decimal times the number. → 0.35×80

The answer is 28, so 35% of 80 is 28.

Answer each question.

1. What decimal is equal to 35%? _____
2. How do you change a percent to a decimal?

3. After the percent is changed to a decimal, what is the next step in finding the percent of a number?

4. Write 10% as a decimal. _____

5. What is 10% of 60? _____

6. What is 20% of 60? _____

7. What is 30% of 60? _____

8. What is 40% of 60? _____

9. What pattern did you notice in the answers to 10, 20, 30, and 40 percent of 60?

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7 **Problem Solving: Percent of a Number**

Write the correct answer.

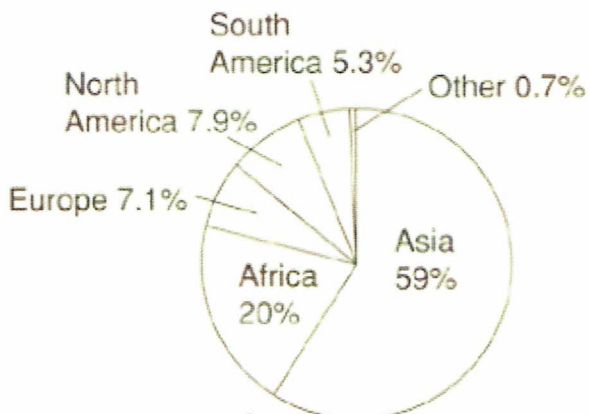
The world population is estimated to exceed 9 billion by the year 2050. Use the circle graph to solve Exercises 1–3.

1. What is the estimated population of Africa in the year 2050?

2. Which continent is estimated to have more than 5.31 billion people by the year 2050?

3. In the year 2002, the world population was estimated at 6 billion people. Based on research from the World Bank, about 20% lived on less than \$1 per day. How many people lived on less than \$1 per day?

Estimated 2050 World Population



4. What is the combined estimated population for North and South America by the year 2050?

Choose the letter for the best answer.

5. The student population at King Middle School is 52% female. The total student population is 1,225 students. How many boys go to King Middle School?

- A 538 boys C 637 boys
 B 588 boys D 1,173 boys

7. A half-cup of pancake mix has 5% of the total daily allowance of cholesterol. The total daily allowance of cholesterol is 300 mg. How much cholesterol does a half-cup of pancake mix have?

- A 100 mg C 20 mg
 B 60 mg D 15 mg

6. There are 245 students in the seventh grade. If 40% of them ride the bus to school, how many seventh graders do not ride the bus to school?

- F 98 students H 185 students
 G 147 students J 205 students

8. Carey needs \$45 to buy her mother a birthday present. She has saved 22% of the amount so far. How much more does she need?

- F \$35.10 H \$23.00
 G \$44.01 J \$9.90