Proportional Relationships

LESSON 8

Problem Solving: Solving Percent Problems

Write the correct answer.

1. At one time during 2001, for every 20 copies of *Harry Potter and the Sorcerer's Stone* that were sold, 13.2 copies of *Harry Potter and the Prisoner of Azkaban* were sold. Express the ratio of copies of *The Prisoner of Azkaban* sold to copies of *The Sorcerer's Stone* sold as a percent.

2. A souvenir mug sells for $8.00 at a hotel gift store. Kendra gives the clerk $9.00 and receives $0.56 in change. What is the sales tax rate?

3. Craig just finished reading 120 pages of his history assignment. If the assignment is 125 pages, what percent has Craig read so far?

4. Hal's Sporting Goods had a 1-day sale. The original price of a mountain bike was $325. On sale, it was $276.25. What is the percent reduction for this sale?

Choose the correct letter for the best answer.

5. China's area is about 3.7 million square miles. It is on the continent of Asia, which has an area of about 17.2 million square miles. About what percent of the Asian continent does China cover?

   A about 10%   C about 17%

   B about 15%   D about 22%

6. After six weeks, the tomato plant that was given extra plant food and water was 26 centimeters tall. The tomato plant that was not given any extra plant food was only 74.5% as tall. How tall was the tomato plant that was not given extra plant food?

   F 1.94 cm   H 34.89 cm

   G 19.37 cm   J 48.5 cm

7. In a survey, 46 people, which was 20% of those surveyed, chose red as their favorite color. How many people were surveyed?

   A 66 people   C 460 people

   B 230 people   D 920 people

8. Of the 77 billion food and drink cans, bottles, and jars Americans throw away each year, about 65% of them are cans. How many food and drink cans, to the nearest billion, do Americans throw away each year?

   F 12 billion   H 50 billion

   G 17 billion   J 65 billion

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