LESSON 4.2

Name _____ Date _____

Practice

For use with pages 170–174

Find the greatest common factor of the numbers by listing factors.

1. 42, 90

2. 34, 68

3. 56, 150

4. 28, 45

5. 60, 350

6. 40, 68

Find the greatest common factor of the numbers using prime factorization. Then tell whether the numbers are relatively prime.

7. 30, 135

8. 45, 56

9. 99, 165

10. 132, 198

11. 20, 88, 165

12. 168, 180, 450

13. Which numbers are relatively prime?

A. 180, 231 **B.** 120, 147 **C.** 75, 112 **D.** 75, 360

14. Describe and correct the error in finding the greatest common factor of 60 and 126.

Factors of 60: 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60

Factors of 126: 1, 2, 3, 6, 7, 9, 14, 18, 21, 42, 63, 126

The greatest common factor of 60 and 126 is $2 \times 3 \times 6 = 36$.

LESSON 4.2 Continued

Name _____ Date _____

Practice

For use with pages 170–174

15. The greatest common factor of two numbers is 5. What could the two numbers be?

16. You made 63 wheat dinner rolls, 45 rye dinner rolls, and 54 sourdough dinner rolls for a family picnic. You want to make up plates of rolls to set on the picnic tables. If each plate is to contain the same amount of each type of roll, and there are no leftover rolls, what is the greatest number of plates that can be made? How many wheat dinner rolls, rye dinner rolls, and sourdough dinner rolls are on each plate?

17. A college class with 30 sophomores, 18 juniors, and 12 seniors is divided into project groups where each group has the same number of sophomores, juniors, and seniors. What is the greatest number of groups that can be formed? How many sophomores, juniors, and seniors are in each project group?

18. A piece of paper is 280 millimeters long and 200 millimeters wide. You want to draw a grid on the paper so that there is a whole number of squares on the paper. What are the possible sizes of the squares? What is the largest possible square?