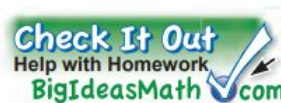


Name \_\_\_\_\_ Core \_\_\_\_ Date \_\_\_\_\_

## 1.5 Exercises



### Vocabulary and Concept Check

1. **VOCABULARY** What is the greatest common factor (GCF) of two numbers?

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2. **WRITING** Describe how to find the GCF of two numbers by using prime factorization.

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3. **DIFFERENT WORDS, SAME QUESTION** Which is different? Find “both” answers.

What is the greatest common factor of 24 and 32?

What is the greatest common divisor of 24 and 32?

What is the greatest common prime factor of 24 and 32?

What is the product of the common prime factors of 24 and 32?



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Find the GCF using the prime factorization.

10. 39, 65

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12. 40, 63

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Find the GCF using any method you like.

14. 27, 63

\_\_\_\_\_

16. 72, 84

\_\_\_\_\_

**ERROR ANALYSIS** Describe and correct the error in finding the GCF.

20.



$$36 = 2^2 \cdot 3^2$$

$$60 = 2^2 \cdot 3 \cdot 5$$

$$\text{The GCF is } 2 \cdot 3 = 6.$$

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22. **BALLOONS** You are making balloon arrangements for a birthday party. There are 16 white balloons and 24 red balloons. Each arrangement must be identical. What is the greatest number of arrangements you can make using every balloon?



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**Find the GCF of the numbers.**

24. 30, 60, 78 \_\_\_\_\_

**CRITICAL THINKING** Tell whether the statement is *always*, *sometimes*, or *never* true.

30. When one number is a multiple of another, the GCF of the numbers is the greater of the numbers.

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