

Challenge Problems

4.3

NAME _____

Module 4 Fractions, Decimals, Percents, and Factors
Lesson 3 Factors and Prime Factorization

Set 1

- 1 Syd and Bork wrote factor trees to find the prime factorization of 80. The first row of Syd's tree showed 20×4 . The first row of Bork's tree showed 16×5 . Show that each factor tree can be used to find the prime factorization.

Set 2

- 1 Two numbers are relatively prime if they have no common factors other than one. The numbers may be prime or composite—relatively prime just means they share no common factors except one.

Make a true statement: 15 and ___ are relatively prime.

Set 3

- 1 Use exponential form to write the prime factorizations of 108 and 162. Explain how the bases and exponents can be used to find the GCF.

- 2 When is the GCF of two numbers the same as the lesser of the two numbers? Explain.

Additional Work Area