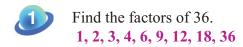
Module 4 Fractions, Decimals, Percents, and Factors Lesson 3 Factors and Prime Factorization Guided Practice

Set 1



Determine whether each number is prime or composite.

19 325 21 composite composite

Set 2

Find the prime factorization of 42.

$$2 \times 3 \times 7$$

Find the prime factorization of 96.

		96	
2	2	48	•
2	2	24	$2 \times 2 \times 2 \times 2 \times 2 \times 3 \text{ or } 2^5 \times 3$
2	2	12	
2	2	6	
		3	

Find the prime factorization of 125.

$$5 \times 5 \times 5 \text{ or } 5^3$$

## Set 3

Find the common factors of 30 and 72. 30: 1, 2, 3, 5, 6, 10, 15, 30 72: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72

Common factors: 1, 2, 3, 6

Find the greatest common factor of 30 and 72. 30: 1, 2, 3, 5, 6, 10, 15, 30 72: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36,72

**Greatest Common Factor: 6** 

Find the greatest common factor of 90 and 135. 90: 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, 90 135: 1, 3, 5, 9, 15, 27, 45, 135

**Greatest Common Factor: 45** 

## Set 4

Use prime factorization to find the GCF of 60 and 72.

$$60 = \begin{vmatrix} 2 \\ 2 \end{vmatrix} \times \begin{vmatrix} 2 \\ 2 \end{vmatrix} \times \begin{vmatrix} 3 \\ 3 \end{vmatrix} \times \\ 72 = \begin{vmatrix} 2 \\ 2 \end{vmatrix} \times \begin{vmatrix} 2 \\ 2 \end{vmatrix} \times 2 \times \begin{vmatrix} 3 \\ 3 \end{vmatrix} \times \\ 3 = \begin{vmatrix} 3 \\$$

**GCF:**  $2 \times 2 \times 3 = 12$ 

Use prime factorization to find the GCF of 30, 45, and 120.

$$30 = 2 \times \boxed{3} \times \boxed{5}$$

$$45 = \boxed{3} \times 3 \times \boxed{5}$$

$$120 = 2 \times 2 \times 2 \times \boxed{3} \times \boxed{5}$$

**GCF:**  $3 \times 5 = 15$