

**Find the greatest common factor and least common multiple of two or more numbers using lists and venn diagrams.**

**Practice Set C**

Name:

Date:

1. Using the numbers 18, 54, 96, 27, and 42, find the pair(s) of numbers with the greatest GCF and the pair(s) with the smallest LCM.

a. What strategies did you use to determine the LCM and GCF of the pairs of numbers?

2. Use the clues below to determine the two mystery numbers.

Clue 1 The greatest common factor of the mystery numbers is 9.

Clue 2 The least common multiple of the mystery numbers is 54.

Clue 3 Both of the numbers have two digits.

Clue 4 One of the numbers is odd and the other number is even.

The mystery numbers are \_\_\_\_ and \_\_\_\_.

a. What strategies did you use to determine the two mystery numbers?

**Find the greatest common factor and least common multiple of two or more numbers using lists and venn diagrams.**

**Practice Set C Answer Key**

1. Using the numbers 18, 54, 96, 27, and 42, find the pair(s) of numbers with the greatest GCF and the pair(s) with the smallest LCM.

The pair with the greatest GCF is 54 and 27 (GCF=27). The pairs with the smallest LCM are 54 and 27, 54 and 18, and 18 and 27. Each pair had a LCM of 54.

a. What strategies did you use to determine the LCM and GCF of the pairs of numbers?

*Some examples of strategies that students could have used are lists, venn diagrams and prime factorization to find the LCM and GCF of the numbers. Any method for finding the LCM and GCF is encouraged.*

2. Use the clues below to determine the two mystery numbers.

Clue 1 The greatest common factor of the mystery numbers is 9.

Clue 2 The least common multiple of the mystery numbers is 54.

Clue 3 Both of the numbers have two digits.

Clue 4 One of the numbers is odd and the other number is even.

The mystery numbers are 18 and 27.

a. What strategies did you use to determine the two mystery numbers?

*Answers will vary. One helpful strategy is to list the multiples of 9 since 9 is the greatest common factor. The two numbers must be 54 or less since 54 is the lcm of the two numbers. The multiples of 9 that are 54 or less are 9, 18, 27, 36, 45, and 54. 9, 18, 27, and 54 are the numbers that have 54 as a multiple. It cannot be 9 because it is not a two digit number. It cannot be 18 and 54 because one of the numbers must be odd (and the gcd is 18). It also cannot be 27 and 54 because the gcd of 27 and 54 is 27. Therefore, the two mystery numbers must be 18 and 27.*