Name _____ Date _____ Class _____

Additional Practice

1. Find the prime factorization for each of the numbers below.

    a. 630   **b.** 144   **c.** 1,011   **d.** 133   **e.** 23

2. Solve each of the multiplication mazes given below. Record your solution for each maze by copying the maze on your paper and then tracing out the path through the maze.

a.

Maze 924

Enter →

2	3	7	2
6	2	7	11
5	4	9	10

Exit →

b.

Maze 1080

Exit →

2	8	6	3
27	5	7	2
2	5	2	9

Enter →

c.

Maze 38220

Enter →

14	39	70	91
7	2	20	60
42	15	2	2
98	26	13	7

Exit →

d.

Maze 210

Enter →

3	10	3	14
2	3	5	7
35	2	105	2
7	15	6	3

Exit →

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Additional Practice (continued)

3. For each of the pairs of numbers given below, find the greatest common factor and the least common multiple.

   a. 25 and 105   b. 27 and 81   c. 36 and 63

4. An odd number that is less than 160 has exactly three different prime factors. What is the number? Explain your reasoning.

5. What number has the prime factorization $2^3 \times 3^2 \times 5^2$?

6. a. Name a pair of numbers whose greatest common factor is the same as one of the numbers.

   b. Name another pair of numbers whose greatest common factor is the same as one of the numbers.

   c. Make a conjecture about what must be true about the least common multiple of any number pairs in which one number is the greatest common factor of the other number.

7. a. Are 45 and 64 relatively prime? Explain your reasoning.

   b. Are 25 and 36 relatively prime? Explain your reasoning.

   c. Is it possible for two numbers that are both even to be relatively prime? Why or why not?

   d. How can you choose one number so that it will be relatively prime to any other number?