Name _____ Date _____

1.4 Practice B

Use divisibility rules to determine whether the number is divisible by 2, 3, 5, 6, 9, and 10. Use a calculator to check your answers.

1. 1035 **2.** 1830 **3.** 2061

List the factor pairs of the number.

4. 23 **5.** 44 **6.** 57

7. 32 **8.** 50 **9.** 61

10. Describe and correct the error in writing the factor pairs of 30.

✗
$30 = 2 \cdot 15$
$30 = 3 \cdot 10$
$30 = 5 \cdot 6$

Write the prime factorization of the number.

11. 64 **12.** 40 **13.** 42

14. 72 **15.** 85 **16.** 91

Find the number represented by the prime factorization.

17. $3^2 \cdot 7 \cdot 11$ **18.** $5^2 \cdot 11^2 \cdot 17$

19. The prime factorization of a number is the product of the first 5 prime numbers. Find the number.

Write the prime factorization of the number.

20. 875 **21.** 256 **22.** 594

23. A friend is building a dog pen with an area of 150 square feet. Each side must be at least 5 feet long.

a. List all possible dimensions of the dog pen.

b. What is the maximum amount of fence required to build the dog pen? How much fence is required?

c. What dimensions would provide the longest running path for the dog?