Name ________________________

Class ________________________

Problem 1 - Prime factorization method

Find gcd(280, 385) using the prime factorization method.

1. Factor each number.

- Factorization of 280:
- Factorization of 385:

2. Multiply the common factors. gcd(280, 385) =

Find lcm(280, 385) using the prime factorization method.

3. Factor each number.

- Factorization of 280:
- Factorization of 385:

4. Multiply 280 by the factors of 285 that are not common.

Problem 2 - Euclid's algorithm

5. Find the remainder when the larger number is divided by the smaller.

6. Find the remainder when the smaller number is divided by that remainder.

7. Continue dividing by the remainder until you get a remainder of 0.

8. The last remainder before the 0 is the gcd.

gcd(280, 385) = ______________

9. Find the lcm(280, 385) using the formula:

$$lcm(a,b) = \frac{a \cdot b}{\text{gcd}(a,b)}$$

10. Return to page 2.5. Use the formula to find the LCM of each pair. Record the LCM in Column D.

11. Check your answers. On pages 1.4 and 2.5, type **=gcd(a,b)** into the formula cells for Column E. Type **=lcm(a,b)** into the formula cells for Column F.

