1. Read Section 4.3, “The Fundamental Theorem of Arithmetic” and Section 5.1, “Applications of Divisibility”.

2. Do Exercises 4.14, 4.15, 4.16, and 4.17. For 4.14, one way to prove two GCDs—say, \( \gcd(x, y) \) and \( \gcd(z, w) \)—are equal is to show that anything which divides both \( x \) and \( y \) must divide both \( z \) and \( w \), and conversely that anything that divides both \( z \) and \( w \) must divide \( x \) and \( y \).