

1 Number Theory Basics

Theorem 1.1 (Fundamental Theorem of Arithmetic). Every integer greater than 1 either is a prime itself or can be represented as the product of primes, unique up to order.

test

Lemma 1.2 (Euclid's Lemma). If a prime p divides the product ab , then p divides a or p divides b .

Corollary 1.3. There are infinitely many primes.

Reference examples: 1.1, 1.2, and 1.3