**Fundamental Theorem of Arithmetic:** Every natural number is either prime, or a unique product of primes

**Two consecutive natural numbers are coprime:**

Proof: Let gcd(n, n-1) = d. Then d|n and d|n-1, so d|(n-(n-1)) and d|1. QED

**Divisibility:**

a|b means “a divides b”, indicating there is an integer q such that b = qa

Useful properties:

* If a|b and b|c, then a|c
* If a|b and b|a, then a = b or a=-b
* If a and b are positive integers such that a|b, then a <= b
* If a|b and a|c, then for every pair of integers x/y, a|(bx + cy), in particular a|(b+c) and a|(b-c)