Induction: To prove ∀n ∈ N such that n ≥ b, P(n)

- Prove P(b) [Base Case]
- Prove for all n > b, if P(0) AND P(1) AND · · · AND P(n − 1) then P(n) [Induction Step]

Proposition 1. For any n ≥ 0, a 2^n × 2^n checker board with a “middle square” removed can be tiled using L-shaped triominoes.
Fibonacci Numbers: Numbers obtained by the following recursive process: $F(0) = 0$, $F(1) = 1$, and
$F(n) = F(n - 1) + F(n - 2)$ when $n > 1$.

**Proposition 2.** For any $n \geq 0$, $F(n)$ is even IFF $F(n + 3)$ is even.

**Theorem 3.** Every integer greater than 1 is a product of primes.

*(Weak) Induction:* To prove $\forall n \in \mathbb{N}$ such that $n \geq b$, $P(n)$

- Prove $P(b)$ [Base Case]
- Prove for all $n > b$, if $P(n - 1)$ then $P(n)$ [Induction Step]