Lecture 5 - Mathematical Induction

Well Ordering Principle

Every nonempty set of nonnegative integers has a least element.

Strong Induction

Given a statement $P(x)$

1. P is true for some particular integer n_0

2. If $k \geq n_0$ is any integer assume $P(i)$ is true for $n_0 \leq i \leq k$ and prove that $P(k+1)$ is true