

$\forall n \in \mathbf{Z}$, if $n \geq$ then

Proof. We will use strong mathematical induction. Let $P(n)$ be the property of integers n such that

$P(n)$ iff

(basis step) We will prove $P(k)$ for $k =$ i.e.

(inductive step) Assume $k \in \mathbf{Z}$, $k >$ and $P(i)$ holds for all integers i with $\leq i < k$ i.e.

We will show that $P(k)$ i.e.

By strong mathematical induction, for every integer n , if $n \geq$ then

QED