

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

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

$P(n)$ iff

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

(inductive step) Assume $k \in \mathbf{Z}$, $k \geq$ and $P(k)$ holds i.e.

We will show that $P(k + 1)$ i.e.

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

QED