Math 444 - Homework 4

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Definition 1. *A* ***sequence*** x_n *is a function defined on the set* $\mathbb{N}$ *onto* $\mathbb{R}$

Definition 2. *A sequence* x_n *is to* ***converge*** *to* x *if for every* ϵ *there exists a* $k = k(\epsilon)$ *so that if* $m \geq k$*, then* $|x_n - x| < \epsilon$

Theorem 1 (3.1.5)**.** *content...*

Definition 3. *Let* $X = (x_n)$ *be a sequence of real numbers, we say that* X *is* ***increasing*** *if*

$$x_1 \leq x_2 \leq x_3 \leq ... \leq x_n \leq x_{n+1} \leq ...$$