

Definition 3.142. [16G] Given nonempty sets I, A , a sequence with indexes in I and taking values in A is a function $a : I \rightarrow A$; this though is usually written by the notation $(a_n)_{n \in I}$. To denote the codomain, the notation $(a_n)_{n \in I} \subseteq A$ is also employed. In this text, in most cases, we will have that $I = \mathbb{N}$, and in this case we will simply write (a_n) .