Homological Algebra

HHH

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Chapter I

Definition 0.1. *Let k be a fixed algebraically closed field. We define affine n-space over k, denoted $\mathbf{A}_k^n$ or simply $\mathbf{A}^n$, to be the set of all n-tuples of elements of k. An element $P \in \mathbf{A}^n$ will be called a point, and if $P = (a_1, \ldots, a_n)$ with $a_i \in k$, then the a_i will be called the coordinates of P.*