

Definition 6.19. [08T] Let $A \subseteq \mathbb{R}$ be not be empty. Recall that the *supremum, or least upper bound*, of a set A is the minimum of majorants; We will indicate it with the usual writing $\sup A$. If A is bounded above then $\sup A$ is a real number; otherwise, by convention, it is set to $\sup A = +\infty$.