**Esercizio 1.** Let $L = \{<\}$ and let $N$ be a $\omega_1$-saturated extension of $\mathbb{Q}$. Prove that there is an embedding $f : \mathbb{R} \to N$. Is it elementary? Can it be an isomorphism?

**Esercizio 2.** Let $M$ and $N$ be elementarily homogeneous structures of the same cardinality $\lambda$. Suppose that $M \models \exists x\, p(x) \Leftrightarrow N \models \exists x\, p(x)$ for every $p(x) \subseteq L$ such that $|x| < \lambda$. Prove that the two structures are isomorphic. (Hint: see Theorem 7.8)

**Esercizio 3.** Let $A \subseteq N \models T_{\text{acf}}$ what is the cardinality of $S_x(A)$, where $|x| = 1$? Recall that $S_x(A)$ is the set of complete types $p(x) \subseteq L(A)$, finitely consistent in $N$.

Answer the same question for $A \subseteq N \models T_{\text{rg}}$.