

The topic of the thesis are common fixed points of commuting functions. With the help of the Mountain climbing theorem we will prove the theorem about extending commuting functions, which will allow us to construct commuting self-mappings of the unit interval with no common fixed point. For the next part we prove several versions of the extending commuting functions theorem using different versions of the Mountain climbing theorem. We will also prove that if X is a dendroid, S an abelian semigroup of continuous monotone self-mappings of X and $f : X \rightarrow X$ commutes with each element of S , then f and S have a common fixed point.