

Preparation Activity PA06 – Regular Languages

1. The regular languages are closed under homomorphism.
 - (a) Explain why.
 - (b) Consider that $h(o) = ab$; and $h(1) = \varepsilon$, and L is the language of regular expression $o1^* + 1o^*$. What is the language obtained by applying function h to L ?
2. Using operations closed under regular languages, describe a way to prove that two regular languages A and B are equal (consider that the two languages can be expressed as regular expressions, NFAs, ε -NFAs or DFAs).