

Permutation groups in automata diagrams

Abstract

Automata act as classical models for recognition devices. From the previous researches, the classical models of automata have been used to scan strings and to determine the types of languages a string belongs to. In the study of automata and group theory, it has been found that the properties of a group can be recognized by the automata using the automata diagrams. There are two types of automata used to study the properties of a group, namely modified finite automata and modified Watson-Crick finite automata. Thus, in this paper, automata diagrams are constructed to recognize permutation groups using the data given by the Cayley table. Thus, the properties of permutation group are analyzed using the automaton diagram that has been constructed. Moreover, some theorems for the properties of permutation group in term of automata are also given in this paper.