Abstract

In this paper, we study some transitivity action properties of the alternating group $An(n=5,6,7,8)$ acting on unordered and ordered pairs from the set $XX = \{1,2,\ldots,nn\}$ through determination of the number of disjoint equivalence classes called orbits. When $nn \leq 8$, the alternating group acts transitively on both X (2) and X[2]. Mathematics Subject Classification: 20BO5, 06A75, 06F15.