

ON  $H$ -CHROMATIC UNIQUENESS OF TWO  
LINEAR UNIFORM CYCLES HAVING SOME  
EDGES IN COMMON

AKHLAQ AHMAD BHATTI\*  
SCHOOL OF MATHEMATICAL SCIENCES  
35-C-II, GULBERG III, LAHORE, PAKISTAN  
E-MAIL: AKHLAQ4782003@YAHOO.COM

ABSTRACT. In this paper it is proved the  $h$ -chromatic uniqueness of the linear  $h$ -hypergraph consisting of two cycles of lengths  $p$  and  $q$  having  $r$  edges in common when  $p = q$ ,  $2 \leq r \leq p - 2$  and  $h \geq 3$ . We also obtain the chromatic polynomial of a connected unicyclic linear  $h$ -hypergraph and show that every  $h$ -uniform cycle of length three is not chromatically unique for  $h \geq 3$ .

Keywords: *hypergraph, cycle, chromatic polynomial,  $h$ -chromatic uniqueness*

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