## Pacific Journal of Mathematics



## IN THIS ISSUE-

R. H. Bruck, Loops with transitive automorphism groups	481
P. R. Garabedian, A partial differential equation arising in conformal mapping  Magnus R. Hestenes, Applications of the theory of quadratic	
	485
Sze-Tsen Hu, On the realizability of homotopy groups and	
their operations	583

Vol. 1, No. 4

December, 1951