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## CONTENTS



**Abstract:** We obtain sufficient conditions for certain weighted mean matrices to be equivalent to $C$, the Cesaro matrix of order 1, when considered as bounded operators on $l^p, 1 < p < \infty$.



**Abstract:** This paper is part of a program to study the conjecture of E. C. Dade on counting characters in blocks for several finite groups of Lie type. The local structures of radical 2-chains of asimple Ree group of type $G_2$ are given, and the conjecture has been verified for the group when the characteristic of the modular representation is distinct from 3.



**Abstract:** Similarity solution of two dimensional velocity boundary layer equations governing the flow of power law fluid along the wall of convergent channel is obtained. The resulting non-linear boundary value problem is solved numerically on computer using Language interpolation formula And Runge-Kutta-Gill scheme. To facilitate the numerical solution, an approximate solution of the problem by Karman-Pohlhausen method, taking a fifth degree velocity profile is also obtained. For $n = 1$, the results obtained by numerical solution agrees, to a very good degree of accuracy, with corresponding results for Newtonian fluid. For various values of $n$, the boundary layer parameters have been tabulated and velocity profiles are drawn and discussed in detail.



**Abstract:** We show that every convergence group of the 2-Sphere containing a normal subgroup isomorphic to the circle group is the topological conjugate of a Mobius group.

**Abstract:** The object of the present paper is to derive some results of a generalized conharmonically recurrent Riemannian manifolds.



**Abstract:** In this paper, we obtain two necessary and sufficient conditions for a metric space to be complete.



**Abstract:** We study the oscillatory and nonoscillatory behavior of solutions of neutral functional
difference equations of the form

$$\Delta[y(n) + p(n)y(\sigma(n))] \pm -f(n, y(g_1(n))) \cdots y(g_m(n)) = 0 \qquad (^*)$$

assuming in particular that $p(n) > 0$, $\lim_{n\longrightarrow\infty} \sigma(n) = \infty$,

$$\lim_{n\longrightarrow\infty} g_i(n) = \infty, 1 \leq i \leq m \quad \text{and} \quad u_1 f(n, u_1, \ldots u_m) \geq 0 \quad \text{for} \quad u_1 u_i > 0,$$

$1 \leq i \leq m$, first we obtain sufficient conditions under which all solutions of $(^*)$ are oscillatory and then derive criteria for $(^*)$ to have bounded nonoscillatory solutions. The principal feature of this paper is that the following four cases for $\{p(n)\}$ and $\{\sigma(n)\}$ are examined : $\{p(n) < 1, \sigma(n) = n - k\}, \{p(n) < 1, \sigma(n) = n + k\}, \{p(n) > 1, \sigma(n) = n - k\}$ $\{p(n) > 1, \sigma(n) = n + k\}$ where $k$ is a positive integer.



**Abstract:** In a reflexive Banach space, the weakly almost periodic solution and its derivative of a certain second-order differential equation with a Stepanov almost periodic forcing function are shown to be almost periodic.



**Abstract:** Constant coefficient contiguous function relations are obtained for the $q$-hydrogeometric functions of $N$ variables.

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