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Florian Luca

A NOTE ON THE PELL EQUATION

99-105

Abstract: Let $d > 1$ be a positive integer which is not a perfect square. Let (X_n, Y_n) be the n^{th} positive nontrivial solution of the Pell equation $X^2 - dY^2 = 1$. In this note we show that if all the prime factors of X_n are in the set $\{2, 3, 5\}$, then $n = 1$.

B. K. Lahiri and Kalishankar Tiwari

FIXED POINT THEOREM FOR SET-VALUED MAPPINGS IN REFLEXIVE
BANACH SPACES

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Abstract: We prove a theorem on common fixed point for set-valued mappings in a reflexive Banach space using the idea of normal structure.

Arvind Kumar and G. S. Srivastava

SPACES OF FUNCTIONS ANALYTIC IN A HALF PLANE

113-120

Abstract: In this paper, spaces of analytic functions represented by a Dirichlet series, have been considered. Using the type of function $f(s)$, a norm has been introduced and a metric has been defined. Properties of this space and characterization of continuous linear functionals have been obtained.

Norihiko Suzuki, Seiichi Fukui and Shigeyoshi Owa

AN APPLICATION OF RUSCHEWEYH DERIVATIVES FOR MULTIVALENT
FUNCTIONS

121-125

Abstract: Using the Ruscheweyh derivatives for multivalent functions in the unit disk, a new class $A_p(\alpha, \beta)$ of multivalent functions is introduced. The object of the present paper is to show some properties of functions belonging to the class $A_p(\alpha, \beta)$.

L. Rempulska and M. Skorupka

A VORONOVSKAJA-TYPE THEOREM FOR SOME LINEAR
POSITIVE OPERATORS

127-137

Abstract: In this note we show the Voronovskaja-type theorem for some linear positive operators of Szasz-Mirakjan type introduced in [1, 3]. Some approximation theorems for these operators were given in [1, 3].

R. K. Raina

SOME RESULTS CONCERNING FRACTIONAL DIFFERINTEGRALS

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Abstract: The purpose of the present paper is to obtain a result giving the fractional differintegrals of an analytic function. As a consequence of this explicit formula, fractional differintegrals involving H -functions are deduced.

Pentti Haukkanen

ON SOME SET-REDUCED ARITHMETICAL SUMS

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Abstract: We evaluate some arithmetical sums over $a \pmod{r}$ with the restriction that $\gcd(a, r) \in S$, where S is an arbitrary subset of the set of positive integers. These evaluations put under the same roof the known evaluations of the respective arithmetical sums over $a \pmod{r}$ with the restrictions that $\gcd(a, r) = 1$ and $\gcd(a, r)$ is a square.

B. Barua and U. C. DE

PROJECTIVE AND CONFORMAL COLLINEATIONS IN A RICCI SYMMETRIC RIEMANNIAN MANIFOLD

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Abstract: The present paper deals with a Ricci symmetric manifold which admits projective and conformal collineations.

N. K. Majumdar

ON THE UNIFICATION OF TRILATERAL GENERATING FUNCTIONS FOR CERTAIN SPECIAL FUNCTIONS

165-176

Abstract: In this paper a theorem in connection with the unification of a class of trilateral generating functions for certain special functions has been established. Several applications of our theorem have also been shown.

P. N. Natarajan

MATRIX TRANSFORMATIONS BETWEEN CERTAIN SEQUENCE SPACES OVER VALUED FIELDS

177-182

Abstract: In the present paper K denotes a complete, non-trivially valued field. If $A = (a_{nk}), a_{nk} \in K, n, k = 1, 2, \dots$ is an infinite matrix, necessary and sufficient conditions for $A : l(p) \rightarrow Q$ are obtained.

Temba Shonhiwa and H. W. Gould

A GENERALIZATION OF CESÀRO'S FUNCTION AND OTHER RESULTS

183-194

Abstract: In a previous paper, the function $\gamma(n) = \sum_{k=1}^n [k, n]$, where $[k, n] = 1$ c.m. of k and n was studied. In this paper we investigate the relationship between the

functions $\gamma(n)$ and $\beta(n) = \sum_{k=1}^n (k, n)$, where $(k, n) = g.c.d$ of k and n . Further, we also

discuss the functions, $T_m(n) = \sum_{\substack{1 \leq a_1, a_2, \dots, a_m \leq n \\ [a_1, \dots, a_m] = n}} 1$ which generalizes Cesàro's function.

$$\sum_{\substack{1 \leq a, b \leq n \\ [a, b] = n}} 1 = \tau(n^2).$$
