

Pacific Journal of Mathematics

**CORRECTION TO: “ON AUTOMORPHISMS OF SEPARABLE
ALGEBRAS”**

LINDSAY NATHAN CHILDS AND FRANK RIMI DEMEYER

ERRATA

Correction to

ON AUTOMORPHISMS OF SEPARABLE ALGEBRAS

L. N. CHILDS AND F. R. DEMEYER

Volume 23 (1967), 25-34

A. Magid has pointed out to us that Lemma 1.8 of [1] is not correct. In [2], Hochschild proves that in any simple algebra over a field every element is a sum of units. It is an elementary exercise to verify that in a finite direct sum of simple algebras every element is a sum of units if and only if at most one of the simple algebra summands is the field $Z/(2)$ of two elements. We thus have the following correction of Lemma 1.8.

LEMMA 1.8'. *Let A be a separable algebra over the semi-local ring K , then every element in A is a sum of units if and only if every element in $A/\text{Rad}(A)$ is a sum of units.*

The proof of Lemma 1.8' is the same as the proof of Lemma 1:8 which appears in [1]. Let $Z_{(2)}$ be the localization of the integers at the prime (2), then the ring of integers A over $Z_{(2)}$ in $Q(\sqrt{17})$ is a separable $Z_{(2)}$ -algebra with no idempotents but 0 and 1 but $A/\text{Rad}(A) \cong Z/(2) \oplus Z/(2)$ so A is not generated by its units. These facts may be found on page 234-36 of [3]. It is therefore necessary to modify the definition of regular ring given in paragraph 2 on page 30 of [1] in order that Theorem 2.1 R be correct. If A is a separable, finitely generated, projective R -algebra and the center of A is K then an R -subalgebra B of A is called regular in case B is separable over R , the only idempotents in the center of $B \otimes_{B \cap K} K$ are 0 and 1, and every element in B is a sum of units in B .

BIBLIOGRAPHY

1. L. N. Childs and F. R. DeMeyer, *On automorphisms of separable algebras*, Pacific J. Math. **23** (1967), 25-34.
2. G. Hochschild, *Automorphisms of simple algebras*, Trans. Amer. Math. Soc. **69** (1950), 292-301.
3. E. Weiss, *Algebraic number theory*. McGraw-Hill (1963).

Received March 5, 1969.

SUNY AT ALBANY, NEW YORK
COLORADO STATE UNIVERSITY, FORT COLLINS, COLORADO

PACIFIC JOURNAL OF MATHEMATICS

EDITORS

H. ROYDEN
Stanford University
Stanford, California

J. DUGUNDJI
Department of Mathematics
University of Southern California
Los Angeles, California 90007

RICHARD PIERCE
University of Washington
Seattle, Washington 98105

BASIL GORDON
University of California
Los Angeles, California 90024

ASSOCIATE EDITORS

E. F. BECKENBACH

B. H. NEUMANN

F. WOLF

K. YOSHIDA

SUPPORTING INSTITUTIONS

UNIVERSITY OF BRITISH COLUMBIA
CALIFORNIA INSTITUTE OF TECHNOLOGY
UNIVERSITY OF CALIFORNIA
MONTANA STATE UNIVERSITY
UNIVERSITY OF NEVADA
NEW MEXICO STATE UNIVERSITY
OREGON STATE UNIVERSITY
UNIVERSITY OF OREGON
OSAKA UNIVERSITY
UNIVERSITY OF SOUTHERN CALIFORNIA

STANFORD UNIVERSITY
UNIVERSITY OF TOKYO
UNIVERSITY OF UTAH
WASHINGTON STATE UNIVERSITY
UNIVERSITY OF WASHINGTON
* * *
AMERICAN MATHEMATICAL SOCIETY
CHEVRON RESEARCH CORPORATION
TRW SYSTEMS
NAVAL WEAPONS CENTER

The Supporting Institutions listed above contribute to the cost of publication of this Journal, but they are not owners or publishers and have no responsibility for its content or policies.

Mathematical papers intended for publication in the *Pacific Journal of Mathematics* should be in typed form or offset-reproduced, double spaced with large margins. Underline Greek letters in red, German in green, and script in blue. The first paragraph or two must be capable of being used separately as a synopsis of the entire paper. It should not contain references to the bibliography. Manuscripts, in duplicate if possible, may be sent to any one of the four editors. Please classify according to the scheme of Math. Rev. **36**, 1539-1546. All other communications to the editors should be addressed to the managing editor, Richard Arens, University of California, Los Angeles, California, 90024.

50 reprints are provided free for each article; additional copies may be obtained at cost in multiples of 50.

The *Pacific Journal of Mathematics* is published monthly. Effective with Volume 16 the price per volume (3 numbers) is \$8.00; single issues, \$3.00. Special price for current issues to individual faculty members of supporting institutions and to individual members of the American Mathematical Society: \$4.00 per volume; single issues \$1.50. Back numbers are available.

Subscriptions, orders for back numbers, and changes of address should be sent to Pacific Journal of Mathematics, 103 Highland Boulevard, Berkeley, California, 94708.

PUBLISHED BY PACIFIC JOURNAL OF MATHEMATICS, A NON-PROFIT CORPORATION

Printed at Kokusai Bunken Insatsusha (International Academic Printing Co., Ltd.), 7-17, Fujimi 2-chome, Chiyoda-ku, Tokyo, Japan.

Pacific Journal of Mathematics

Vol. 31, No. 3

BadMonth, 1969

George E. Andrews, <i>On a calculus of partition functions</i>	555
Silvio Aurora, <i>A representation theorem for certain connected rings</i>	563
Lawrence Wasson Baggett, <i>A note on groups with finite dual spaces</i>	569
Steven Barry Bank, <i>On majorants for solutions of algebraic differential equations in regions of the complex plane</i>	573
Klaus R. Bichteler, <i>Locally compact topologies on a group and the corresponding continuous irreducible representations</i>	583
Mario Borelli, <i>Affine complements of divisors</i>	595
Carlos Jorge Do Rego Borges, <i>A study of absolute extensor spaces</i>	609
Bruce Langworthy Chalmers, <i>Subspace kernels and minimum problems in Hilbert spaces with kernel function</i>	619
John Dauns, <i>Representation of L-groups and F-rings</i>	629
Spencer Ernest Dickson and Kent Ralph Fuller, <i>Algebras for which every indecomposable right module is invariant in its injective envelope</i>	655
Robert Fraser and Sam Bernard Nadler, Jr., <i>Sequences of contractive maps and fixed points</i>	659
Judith Lee Gersting, <i>A rate of growth criterion for universality of regressive isols</i>	669
Robert Fred Gordon, <i>Rings in which minimal left ideals are projective</i>	679
Fred Gross, <i>Entire functions of several variables with algebraic derivatives at certain algebraic points</i>	693
W. Charles (Wilbur) Holland Jr. and Stephen H. McCleary, <i>Wreath products of ordered permutation groups</i>	703
W. J. Kim, <i>The Schwarzian derivative and multivalence</i>	717
Robert Hamor La Grange, Jr., <i>On $(m - n)$ products of Boolean algebras</i>	725
Charles D. Masiello, <i>The average of a gauge</i>	733
Stephen H. McCleary, <i>The closed prime subgroups of certain ordered permutation groups</i>	745
Richard Roy Miller, <i>Gleason parts and Choquet boundary points in convolution measure algebras</i>	755
Harold L. Peterson, Jr., <i>On dyadic subspaces</i>	773
Derek J. S. Robinson, <i>Groups which are minimal with respect to normality being intransitive</i>	777
Ralph Edwin Showalter, <i>Partial differential equations of Sobolev-Galpern type</i>	787
David Slepian, <i>The content of some extreme simplexes</i>	795
Joseph L. Taylor, <i>Noncommutative convolution measure algebras</i>	809
B. S. Yadav, <i>Contractions of functions and their Fourier series</i>	827
Lindsay Nathan Childs and Frank Rimi DeMeyer, <i>Correction to: "On automorphisms of separable algebras"</i>	833
Moses Glasner and Richard Emanuel Katz, <i>Correction to: "Function-theoretic degeneracy criteria for Riemannian manifolds"</i>	834
Satish Shirali, <i>Correction to: "On the Jordan structure of complex Banach *algebras"</i>	834
Benjamin Rigler Halpern, <i>Addendum to: "Fixed points for iterates"</i>	834