

DIDACTICS OF MATHEMATICS

10(14)



The Publishing House
of Wrocław University of Economics
Wrocław 2013

Reviewers cooperating with the journal
*Giovanna Carcano, Igor Dubina, Salvatore Federico,
Marian Matłoka, Włodzimierz Odyniec, Anatol Pilawski,
Tadeusz Stanisz, Achille Vernizzi, Henryk Zawadzki*

Copy-editing
Elżbieta Macauley, Tim Macauley

Proof reading
Barbara Cibis

Typesetting
Elżbieta Szlachcic

Cover design
Robert Mazurczyk

Front cover painting: W. Tank, Sower
(private collection)

This publication is available at: www.journal.ue.wroc.pl and www.ibuk.pl
Information of submitting and reviewing paper is available on
the Publishing House's website www.wydawnictwo.ue.wroc.pl

© Copyright by Wrocław University of Economics
Wrocław 2013

PL ISSN 1733-7941

The original version: printed

Printing: Printing House EXPOL,
P. Rybiński, J. Dąbek, sp.j. ul. Brzeska 4, 87-800 Włocławek

TABLE OF CONTENTS

Marek Biernacki, Katarzyna Czesak-Woytala	
Is education in Poland really effective?	5
Wiktor Ejsmont, Janusz Łyko	
Spatial analysis of learning results in high school mathematics and Polish by county	19
Tadeusz Janaszak	
A handful of theorems about point increase	33
Tadeusz Janaszak	
Some remarks about horizontal, slant, parabolic and polynomial asymptote	45
Ludomir M. Ludański	
Single–word self–referential sentences	57
Arkadiusz Maciuk	
Significance of the concept of quality of education for didactics of mathematics in universities in Poland	65
Andrzej Wilkowski	
Penney’s game in didactics	77
Anna Zięba	
The item information function in one and two-parameter logistic models – a comparison and use in the analysis of the results of school tests	87