

# TABLE OF CONTENTS

## **PREFACE**

- v** *Mara Markinson, Teachers College, Columbia University*  
*Patrick Galarza, Teachers College, Columbia University*

## **ARTICLES**

- 1** **What Form of Mathematics are Assessments Assessing? The Case of Multiplication and Division in Fourth Grade NAEP Items**  
*Karl W. Kosko, Kent State University*  
*Rashmi Singh, Kent State University*
- 9** **The Portrayal of Mathematicians and Mathematics in Popular Culture**  
*Kimberly Barba, Teachers College, Columbia University*
- 15** **Doctoral Programs in Mathematics Education: Should Programs be Accredited?**  
*Robert Reys, University of Missouri-Columbia*

# ABOUT THE AUTHORS



**Kimberly Barba** completed her M.S. degree in Pure Mathematics at King's College London in 2014 and is currently a Ph.D. student in Mathematics Education at Teachers College, Columbia University. In addition, Kimberly has been a high school mathematics teacher for 6 years, teaching Honors Geometry, AP Calculus BC, and Multivariable Calculus. Kimberly's research interests include mathematical mindsets, mathematics anxiety, and mathematical identities.



**Karl W. Kosko** is an assistant professor in mathematics education at Kent State University. His program of research centers on how mathematical meaning is conveyed. Recent research has extended to examining children's mathematical meaning in multiplicative contexts and tasks, leading to the current development and application of the Multiplicative Reasoning Assessment (MRA).



**Robert Reys** is a Curators' Distinguished Professor Emeritus at the University of Missouri. He has been at Mizzou for more than one-half of a century. He also spent a year at the National Science Foundation as a program officer, a year at the University of Tuskuba (Japan) and was a Fulbright Research Lecturer at the University of Guanajuato (Mexico) and the University of Gothenborg (Sweden). He has authored or co-authored more than 230 articles in professional journals and co-authored or edited more than 30 books.

During the last 20 years he has been engaged in research related to doctoral programs in mathematics education and was co-founder of the STaR program for early career mathematics educators. He received the Lifetime Achievement Award from the National Council of Teachers of Mathematics in 2008. He continues to play tennis and officiates D-1 collegiate tennis matches.



**Rashmi Singh** is a doctoral candidate in mathematics education at Kent State University. Her primary research interest is in probing the students' conception in different areas of K-12 mathematics, and the factors (such as standards, instruction, assessments etc.) affecting the development of such understanding among students. She has studied elementary students' conception of equivalence and multiplicative reasoning by means of designing and validating assessments for these concepts. In her ongoing studies she also focuses on prospective and in-service teachers' content knowledge of different mathematical topics (specifically algebraic reasoning, geometry proof, shape knowledge).

# ACKNOWLEDGEMENT OF REVIEWERS

The Editorial Board would like to acknowledge the following reviewers for their effort and support in reviewing articles for this issue of the *Journal of Mathematics Education at Teachers College*. Without the help of these professionals, it would be impossible to maintain the high standards expected of our peer-reviewed journal.

Benjamin Bailey  
*Teachers College, Columbia University*

Sunyoung Ban  
*Teachers College, Columbia University*

Mark Causapin  
*Aquinas College*

Steven Cheng  
*Teachers College, Columbia University*

Ewa Dabkowska  
*Teachers College, Columbia University*

Alanna Gibbons  
*Teachers College, Columbia University*

Chris Huson  
*Bronx Early College Academy*

Soomi Kim  
*Teachers College, Columbia University*

Bowen Liu  
*Teachers College, Columbia University*

Lucian Makalanda  
*Teachers College, Columbia University*

Will McGuffey  
*Teachers College, Columbia University*

Anthony Miele  
*Teachers College, Columbia University*

Christopher Vicevich  
*Teachers College, Columbia University*

Elizabeth Wentworth  
*Teachers College, Columbia University*

Elizabeth Wilson  
*Teachers College, Columbia University*

Sian Zelbo  
*Teachers College, Columbia University*