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Teaching school mathematics: algebra.
Providence, RI: American Mathematical Society (AMS) (ISBN 978-1-4704-2721-4/hbk; 978-1-4704-3019-1/ebook). xix, 274 p. (2016).

Publisher's description: This is a systematic exposition of introductory school algebra written specifically for Common Core era teachers. The emphasis of the exposition is to give a mathematically correct treatment of introductory algebra. For example, it explains the proper use of symbols, why "variable" is not a mathematical concept, what an equation is, what equation-solving means, how to define the slope of a line correctly, why the graph of a linear equation in two variables is a straight line, why every straight line is the graph of a linear equation in two variables, how to use the shape of the graph of a quadratic function as a guide for the study of quadratic functions, how to define a parabola correctly, why the graph of a quadratic function is a parabola, why all parabolas are similar, etc. This exposition of algebra makes full use of the geometric concepts of congruence and similarity, and it justifies why the Common Core Standards on algebra are written the way they are.

Classification: H29 H39 I29 F59