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## **Preface**

It is essential to lay a solid foundation in mathematics if a student is to be competitive in today's global market. The importance of algebra, in particular, cannot be overstated, as it is the basis of all mathematical modeling used in applications found in all disciplines. Traditionally, the study of algebra is separated into a two parts, elementary algebra and intermediate algebra. This textbook, *Elementary Algebra*, is the first part, written in a clear and concise manner, making no assumption of prior algebra experience. It carefully guides students from the basics to the more advanced techniques required to be successful in the next course.

This text is, by far, the best elementary algebra textbook offered under a Creative Commons license. It is written in such a way as to maintain maximum flexibility and usability. A modular format was carefully integrated into the design. For example, certain topics, like functions, can be covered or omitted without compromising the overall flow of the text. An introduction of square roots in Chapter 1 is another example that allows for instructors wishing to include the quadratic formula early to do so. Topics such as these are carefully included to enhance the flexibility throughout. This textbook will effectively enable traditional or nontraditional approaches to elementary algebra. This, in addition to robust and diverse exercise sets, provides the base for an excellent individualized textbook instructors can use free of needless edition changes and excessive costs! A few other differences are highlighted below:

- Equivalent mathematical notation using standard text found on a keyboard
- A variety of applications and word problems included in most exercise sets
- Clearly enumerated steps found in context within carefully chosen examples
- Alternative methods and notation, modularly integrated, where appropriate
- Video examples available, in context, within the online version of the textbook
- Robust and diverse exercise sets with discussion board questions
- Key words and key takeaways summarizing each section

This text employs an early-and-often approach to real-world applications, laying the foundation for students to translate problems described in words into

mathematical equations. It also clearly lays out the steps required to build the skills needed to solve these equations and interpret the results. With robust and diverse exercise sets, students have the opportunity to solve plenty of practice problems. In addition to embedded video examples and other online learning resources, the importance of practice with pencil and paper is stressed. This text respects the traditional approaches to algebra pedagogy while enhancing it with the technology available today. In addition, textual notation is introduced as a means to communicate solutions electronically throughout the text. While it is important to obtain the skills to solve problems correctly, it is just as important to communicate those solutions with others effectively in the modern era of instant communications.

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