

PREFACE

This *Guide* uses actual examples and applications given in *Calculus Concepts: An Informal Approach to the Mathematics of Change*. Wherever a  appears in your text, a new technology technique is illustrated in this *Guide*. The icon is your clue to refer to the particular section of this *Graphing Calculator Instruction Guide* that discusses the text section for your specific calculator. When there is no reference to a certain section in the text, either there is no new procedure to learn or the necessary techniques have been covered in an earlier section of this *Guide*. However, there are discussions in this *Guide* that refer to sections of your text not marked with a . Refer to the table of contents of this *Guide* often.

The use of technology is an integral part of your study of calculus using *Calculus Concepts*. Even though the text requires technology, it does not demand any particular technology. Any graphing calculator or computer algebra system that has the functionality indicated in this *Guide* will suffice. The materials contained herein provide instruction for using the TI-82, TI-83, TI-85, or TI-86 in your course. A supplement to this *Guide*, covering exactly the same material as that discussed for the other calculators, is available for the HP 48G/GX.

This *Guide* is broken into two parts, with each part containing all the instruction for two particular calculator models. Within each part, the discussions are ordered to match the organization of the text chapters. You should refer to these materials for explanations of how to use your calculator with *Calculus Concepts* as you go through each section of the text.

Throughout this *Guide*, the following notation conventions will be used to help you recognize various commands and keystrokes:

- Main keyboard keys are enclosed in rectangular boxes (for example, ENTER) except for certain numeric keys, English alphabet letters, and the decimal point.
- The second function of a key is listed in parentheses after the main keyboard keystrokes used to activate the second function (for example, 2nd LN (e^x)).
- The alpha function of a key is listed in parentheses after the main keyboard keystrokes used to activate the alpha function (for example, ALPHA SIN (E)).
- Function keys and menu items are indicated by the main keyboard key followed by the keystroke sequence necessary to access the item and the name of the item (for example, STAT 1 (Edit)).

The calculator code for programs referenced in these materials are listed in a separate *Appendix* for each of the two parts of the manual.

This *Guide* does not replace your calculator's instruction manual. You should refer to that manual to learn about the basic operation and use of your calculator.

Each of the calculators discussed in this *Guide* has special functionality in certain areas that the other calculators do not. The instructions in this *Guide* cover only those techniques that can be used on all the calculators because many classes using *Calculus Concepts* are taught to students in multi-calculator classrooms.

The author team of *Calculus Concepts* gives special thanks to these calculator manufacturers: Texas Instruments, Sharp, Hewlett-Packard, and Casio, for their assistance during the preparation and field testing of the text manuscript and *Guide*.

Any comments or suggestions concerning this *Guide* can be directed to the publisher or to

Iris B. Fetta

Clemson University
Mathematical Sciences
Clemson, SC 29634-1907

ibbrh@clemson.edu