# APPENDIX C
# C89 versus K&R C

This appendix lists most of the significant differences between C89 and K&R C (the language described in the first edition of Kernighan and Ritchie's *The C Programming Language*). The headings indicate which chapter of this book discusses each C89 feature. This appendix doesn't address the C library, which has changed much over the years. For other (less important) differences between C89 and K&R C, consult Appendices A and C in the second edition of K&R.

Most of today's C compilers can handle all of C89, but this appendix is useful if you to happen to encounter older programs that were originally written for pre-C89 compilers.

## 2 C Fundamentals

*identifiers*   In K&R C, only the first eight characters of an identifier are significant.

*keywords*   K&R C lacks the keywords const, enum, signed, void, and volatile. In K&R C, the word entry is a keyword.

## 4 Expressions

*unary +*   K&R C doesn't support the unary + operator.

## 5 Selection Statements

switch   In K&R C, the controlling expression (and case labels) in a switch statement must have type int after promotion. In C89, the expression and labels may be of any integral type, including unsigned int and long int.