

will be set equal to 6. In $A\% = B + 2\%$, suppose B equals 9.8. First, the 2% is converted to a real number and then added to 9.8. This gives 11.8. Then 11.8 is rounded to 12 and $A\%$ is set equal to 12. Note the difference between this and the divide command. There the remainder was discarded; here the answer is rounded.

Appendix B is a list of words reserved by Advan BASIC. If you use a reserved word for a variable name, you will get a syntax error. Also, unless you are defining a function routine, real and integer variable names must not start with FN.

Strings

Advan BASIC handles strings quite differently from ATARI BASIC. In ATARI the length of each string must be given in a dimension statement and there are no string arrays. This makes strings harder to use. In Advan BASIC, however, you do not need to specify the length of strings. You use dimension statements only to set up arrays (including strings). The maximum string length is 256.

String variable names must end with a \$ symbol. You may combine (concatenate) strings using the plus operator. For example, the following program will print ABCDEFG:

```
10 A$="ABC"
20 B$="DEF"
30 GB52$="G"
40 C$=A$+B$+GB52$
50 PRINT C$
```

There are a number of useful built-in functions to help you work with strings, such as LEFT, RIGHT, MID, INSTR, STR\$, LEN, CHR\$, ASC, and others. See Chapter 10 for additional material.

You will get a syntax error if you use a string name reserved by Advan BASIC (See Appendix B.) Also, unless you are defining a string function, string variable names must not start with FN.

Arrays

The DIM statement indicates that a variable is the name of an array. The number of subscripts can vary from 1 to 64. For example:

```
10 DIM A%(5,3),B$(6,8,2),A(5)
```

This line indicates that $A\%$, $B\%$, and A are arrays. The numbers in parentheses are the maximum values of the subscripts. The minimum value of a subscript is always zero. The DIM statement must always be in a line which precedes the use of the variable.

Special Note: In many BASICs you do not have to dimension an array if the maximum value of a subscript is 10 or less. This will not work with Advan BASIC. All arrays must be dimensioned. Also, all variables and all arrays are zeroed at the start of a program execution.