CH. 5 Debugging Exercises

1. This program would produce an infinite loop

Declare Boolean finished = False

Declare Integer value, cube

While NOT finished

Display “Enter a value to be cubed.”

Input value;

Set cube = value^3

Display value, “ cubed is “, cube

Set finished = true

End While

1. The while loop will end once counter has reached 59 because counter is no longer less than TIME\_LIMIT, which is set to 60, it is equal to it.

Declare Integer counter = 1

Const Integer TIME\_LIMIT = 60

While counter <= TIME\_LIMIT

Display counter

Set counter = counter + 1

End While

Display “Time’s up!”

1. The constants in the for loops are nested incorrectly. In its current state it will give two sets of five numbers instead of the alternative.

Declare Integer number, sum, total

Declare Integer sets, numbers

Constant Integer MAX\_SETS = 5

Constant Integer MAX\_NUMBERS = 2

Set sum = 0

Set total = 0

For sets = 1 to MAX\_SETS

For numbers = 1 to MAX\_NUMBERS

Display “Enter number “, numbers, “ of set “, sets, “.”

Input number;

Set sum = sum + number

End For

Display “The sum of set “, sets, “ is “, sum, “.”

Set total = total +sum

Set sum = 0

End For

Display “The total of all the sets is “, total, “.”