DEBUG06-01

// A high school is holding a recycling competition,

// and this program allows a user to enter a student's

// year in school (1 through 4) and number of cans collected

// for recycling. Data is entered continuously until the user

// enters 9 for the year.

// After headings, output is four lines --

// one for each school year class.

start

Declarations

num year

num cans

num SIZE = 4

num QUIT = 9

num collectedArray[SIZE] = 0, 0, 0, 0 // 4 elements needed

string HEAD1 = "Can Recycling Report"

string HEAD2 = "Year Cans Collected"

output "Enter year of student or ", QUIT, " to quit "

input year

while year <> QUIT

output "Enter number of cans collected "

input cans

collectedArray[year] = collectedArray[year] + cans

output "Enter year of student or ", QUIT, " to quit "

input year

endwhile

output HEAD1

output HEAD2

year = 1

while year <= SIZE // need = to include year 4

output year, collectedArray[year - 1] // subtract 1 to include position

year = year + 1

endwhile

stop

DEBUG06-02

// Program lets user input scores on four tests

// Average is computed and letter grade is determined

// Letter grades are based on 90 for an A, 80 for a B, and so on

start

string name

num score

num NUM\_TESTS = 4

num NUM\_RANGES = 5

num RANGES[NUM\_RANGES] = 90, 80, 70, 60, 0

string QUIT = "ZZZZZ"

string GRADES[NUM\_RANGES] = "A", "B", "C", "D", "F"

num total

num average

num sub

string letterGrade // undefined variable

output "Enter student name or ", QUIT, " to quit "

input name

while name <> QUIT

sub = 0

total = 0

while sub < NUM\_TESTS

output "Enter score "

input score

total = total + score // scores would never add

sub = sub + 1 // needed to increment to continue loop

endwhile // controlling variable needs to be in the loop

average = total / NUM\_TESTS // needed to calculate average

sub = NUM\_RANGES - 1 // reset sub

while average < RANGES[sub] // requires subscript

sub = sub - 1 // decrement to continue loop

endwhile

letterGrade = GRADES[sub]

output name, letterGrade

output "Enter student name or ", QUIT, " to quit "

input lettergrade

endwhile

stop

DEBUG06-03

// This program counts how many sales are made

// in each of five categories of products

start

Declarations

num category

num SIZE = 5

num QUIT = 9

num sales[SIZE] = 0, 0, 0, 0, 0

string HEAD1 = "Sales"

string HEAD2 = "Category Number of Sales"

output "Enter category or ", QUIT, " to quit "

input category

while category = QUIT

if category >= 1 AND category <= SIZE then // need = or categories 1 and 5 will never get data

sales[category] = sales[category] + 1 // decrementing [category] dept 5 will never get data

else

output "Invalid category"

endif

endwhile

output HEAD1

output HEAD2

category = 0 // reset variable

while category < SIZE

output category + 1, sales[category]

category = category + 1

endwhile

stop