SIMPLE EXAMPLE PROGRAMS: write the SML code that your compiler should generate for these examples. Storage for variables must be allocated from the end of currently unused memory.

A) input 3 integers and display their average

15 rem Input 3 values, display their average

20 input x

30 input y

40 input z

50 let a = (x + y + z)/3

60 output a

70 end

B) Use a sentinel controlled loop to find the largest value. Stop with -9999 is entered.

10 rem Sentinel controlled loop to find largest value x

15 input n

20 rem User terminates before data entered - end pgm

25 if n == -9999 goto 75

30 let x = n

35 rem Loop to keep entering data, and print largest when terminated

40 input n

45 if n == -999 goto 70

50 if n <= x goto 65

55 let x = n

65 goto 40

70 print x

75 end

C) Use counter controlled loop to input 5 integers and compute their average

10 rem Input 5 integers and display their average, s is sum, n is number c is counter

15 let s = 0

20 let c = 1

25 if c > 5 goto 50

30 input n

35 s = s + n

40 c = c + 1

45 goto 25

50 let s = s / c

55 print s

60 end