PSEUDOCODE

READ numberOfArguments

IF numberOfArguments <= 3

WRITE “not enough arguments”

DO Exit

ENDIF

READ numberOfProcesses, protectionValue, delayAdjustment

IF numberOfProcesses <= 0

WRITE “Number of child processes must be greater than zero”

DO Exit

ENDIF

IF numberOfProcesses > 100

WRITE “Number of child processes cannot be greater than 100”

DO Exit

ENDIF

IF protectionValue <> “s” AND protectionValue <> “n”

WRITE “Invalid argument”, protectionValue

DO Exit

ENDIF

DO CreateSemaphore

DO CreateChildren

IF protectionValue == “s”

DO POperation

READ processID, parentID, childID

WRITE count, processID, parentID, childID

IF protectionValue == “s”

DO VOperation

DO Exit

CreateSemaphore

s = 1

CreateChildren

count = 0

DO CreateChild

ADD 1 to count

WHILE count < numberOfProcesses

IF childProcess == “true”

DO CreateChild

ADD 1 to count

ENDIF

ENDWHILE

POperation

WHILE s == 0

DO Wait

ENDWHILE

SUBTRACT 1 from s

VOperation

ADD 1 to s