Bacalangco Joyce Professor: Ms Jen Aroyo

PROGCON

A Procedure

  Program to find the smallest positive integer Number  
  For which Sum = 1 + 2 + ... + Number  
   is greater than a user input value Limit.

    IMPLICIT NONE

   Declare variable names and types

    INTEGER :: Number, Sum, Limit

  Initialize Sum and Number

    Number = 0  
    Sum = 0

   Ask the user to input Limit

    PRINT \*, "Enter the value for which the sum is to exceed:"  
    READ \*, Limit

   Create loop that repeats until the smallest value for Number is found.

    DO  
        IF (Sum > Limit) EXIT    !  Terminate repetition once Number is found  
      otherwise increment number by one  
        Number = Number + 1  
        Sum = Sum + 1  
    END DO

   the results

    PRINT \*, "1 + ... + ", Number, "=", Sum, ">", Limit

    END PROGRAM

Pseudocode:

    Input:    An integer *Limit*  
    Ouput:   Two integers: *Number* and *Sum*

1.  Enter *Limit*  
2.  Set *Number* = 0.  
3.  Set *Sum* = 0.  
4.  Repeat the following:  
    a.  If *Sum*> *Limit*, terminate the repitition, otherwise.  
    b.  Increment *Number*by one.  
    c.  Add *Number*to *Sum*and set equal to *Sum*.  
5.  Print *Number* and *Sum*.

B. Flowchart



Add number to sum

Incrementnumber by 11

in

Set supm equal to

Set number equal to 0