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**************************************
*
* Name: Dwayne Williams
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* Date: 9/25/17
* Lab2
*
* Program description:
*
* Pseudocode:
*
* #define N 255
* unsigned int result;
* unsigned int inby;
* unsigned int fval;
* unsigned int c1;
*
* result = 0;
* inby = 1;
* c1 = N;
* fval = 2*c1-1;
*
* do{
* result += inby;
* inby+=2;
* } until (inby >= fval)
*
**************************************

* start of data section

    ORG     $B000
N       FCB 255

    ORG     $B010
RESULT  RMB         2
INBY    RMB 2
FVAL    RMB 2
C1  RMB 2
* define any other variables that you might need here

    ORG $C000
    CLR FVAL
    CLR FVAL+1
    CLR C1
    CLR C1+1
    CLR INBY
    CLR INBY+1
    CLR RESULT
    CLR RESULT+1

    INC INBY+1      *initialize counter to  one
```

```
    LDAB    C1+1
    ADDB    N       *copy the value in N and store it in C1
    STAB    C1+1
    LDD FVAL
    ADDD    C1
    ADDD    C1
    SUBD    #0001       *add c1 twice and subtract 1
    STD FVAL

    BRA DO      *skip incbyh for first time

INCBYH  LDD INBY        *load counter for result incrementing
    ADDD    #0002       *add 2 to inby
    STD INBY
    BRA UNTIL

DO  LDD RESULT
    ADDD    INBY        *increment result by inby
    STD RESULT
    BRA INCBYH      *always branch to inrement inby

UNTIL   LDD INBY
    CMPD    FVAL
    BLS DO      *stop if inby reaches fval

DONE    BRA DONE

* start of your program
```