NAME: CHRYS SEAN T. SEVILLA **DATE:** OCTOBER 12, 2023

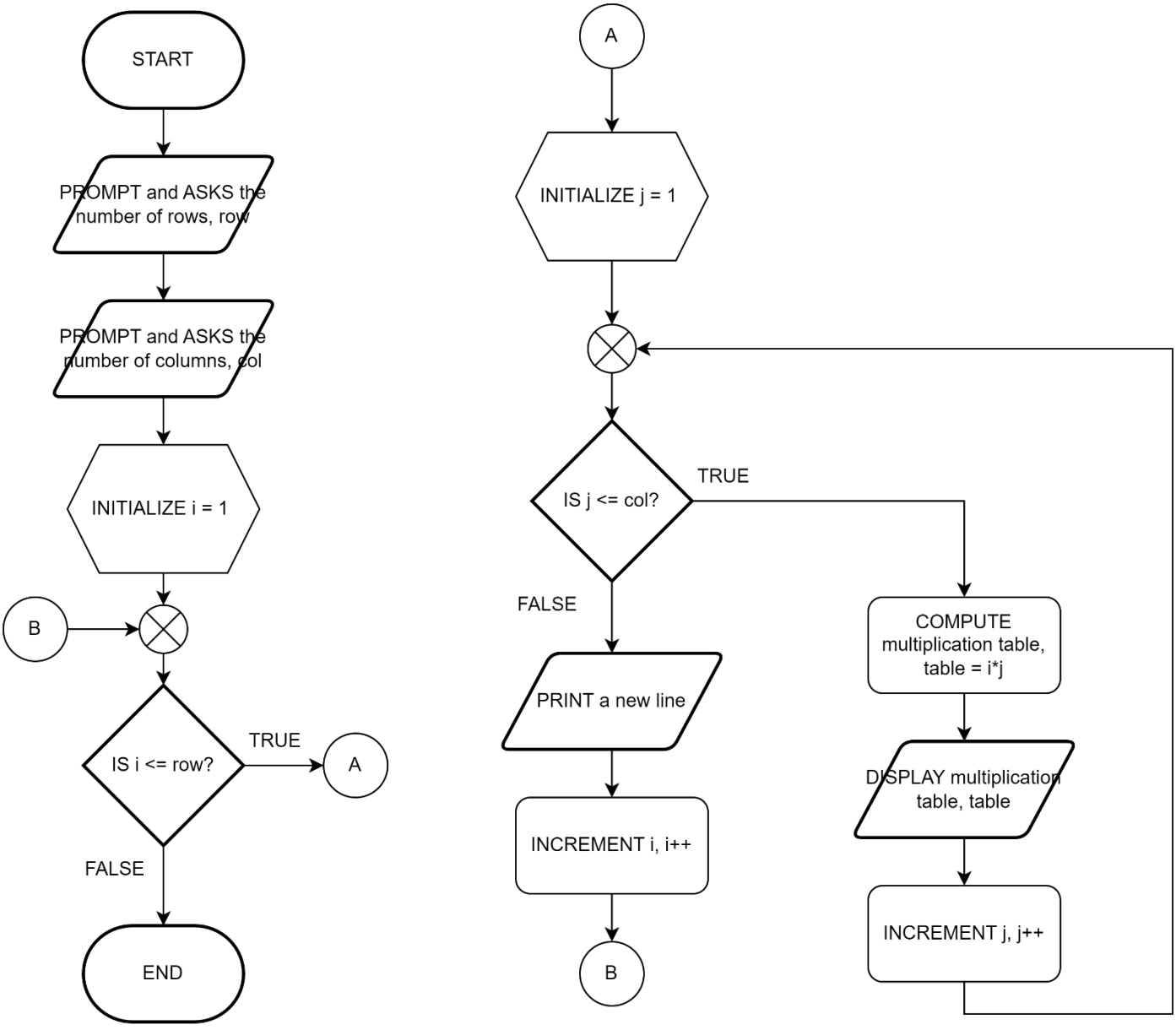
AlgoExercise 5.2

1. Multiplication Table.
   A program that will ask the user to input the number of rows and columns the table should have and display the multiplication table on screen.

START

1. PROMPT and ASKS the user the number of rows, row
2. PROMPT and ASKS the user for the number of columns, col
3. FOR (i=1;i<=row;i++) DO
   a. FOR (j=1;j<=col;j++) DO
      i. COMPUTE for the multiplication table, table = i*j
      ii. DISPLAY the product of the multiplication table, table
   b. ENDFOR
   c. PRINT new line
4. ENDFOR

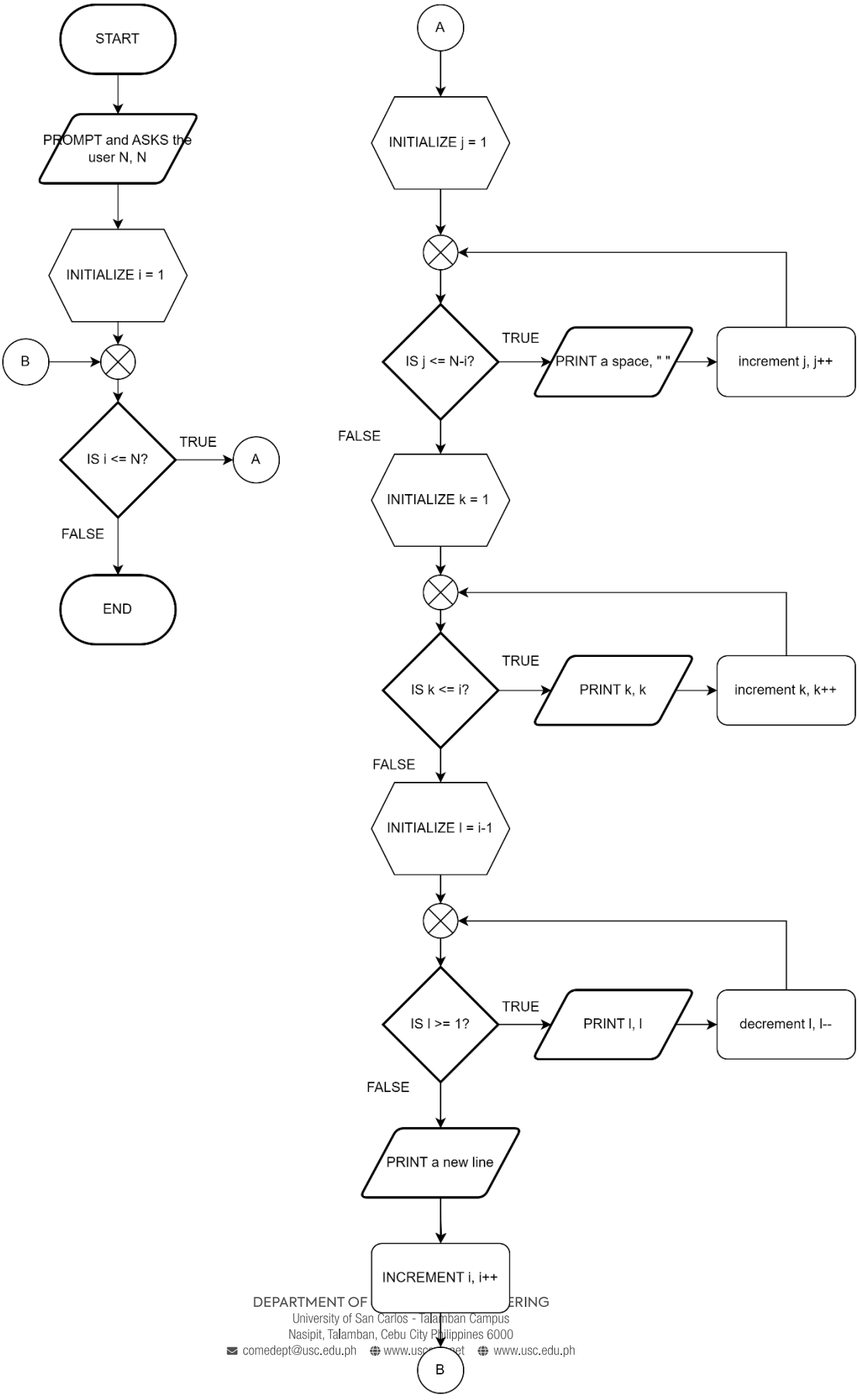
END


START
PROMPT and ASKS the number of rows, row
PROMPT and ASKS the number of columns, col
INITIALIZE i = 1
B
IS i <= row?
TRUE
A
FALSE
END
A
INITIALIZE j = 1
IS j <= col?
TRUE
FALSE
PRINT a new line
INCREMENT i, i++
B
COMPUTE multiplication table, table = i*j
DISPLAY multiplication table, table
INCREMENT j, j++

2. Pyramid.
   Create program that would display numbers in a pyramid.

START
1. PROMPT and ASKS the user the number of N, N
2. FOR (i=1;i<=N;i++) DO
   a. FOR (j=1;j<=N-i;j++) DO
      i. PRINT space
   b. ENDFOR
   c. FOR (k=1;k<=i;k++) DO
      i. PRINT k
   d. ENDFOR
   e. FOR (l=i-1;l>=1;l--) DO
      i. PRINT l
   f. ENDFOR
   g. PRINT new line
3. ENDFOR

END

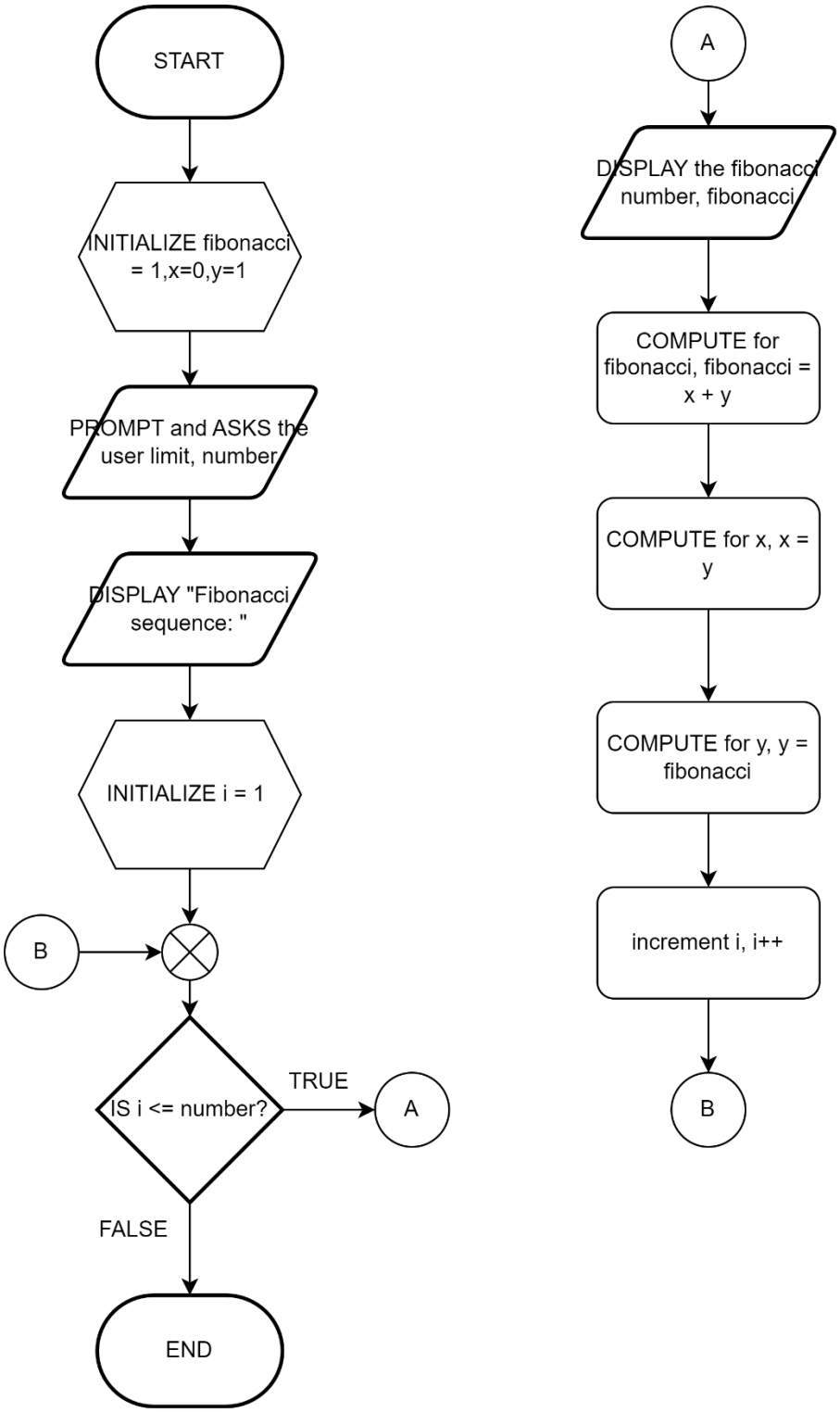

START
PROMPT and ASKS the user N, N
INITIALIZE i = 1
B
IS i <= N?
TRUE
A
FALSE
END
A
INITIALIZE j = 1
IS j <= N-i?
TRUE
PRINT a space, " "
increment j, j++
FALSE
INITIALIZE k = 1
IS k <= i?
TRUE
PRINT k, k
increment k, k++
FALSE
INITIALIZE l = i-1
IS l >= 1?
TRUE
PRINT l, l
decrement l, l--
FALSE
PRINT a new line
INCREMENT i, i++
B

3. Fibonacci Series. Create a program that will display the 1-N value of the Fibonacci sequence.

START

1. INITIALIZE fibonacci=1,x=0,y=1
2. PROMPT and ASKS the user limit of the Fibonacci, number
3. DISPLAY “Fibonacci sequence: “
4. FOR (i=1;i<=number;i++) DO
   a. DISPLAY the Fibonacci number, fibonacci
   b. COMPUTE Fibonacci, Fibonacci = x + y
   c. COMPUTE for x, x = y
   d. COMPUTE for y, = fibonacci
5. ENDFOR

END


START
INITIALIZE fibonacci = 1,x=0,y=1
PROMPT and ASKS the user limit, number
DISPLAY "Fibonacci sequence: "
INITIALIZE i = 1
B
IS i <= number?
TRUE
A
FALSE
END
A
DISPLAY the fibonacci number, fibonacci
COMPUTE for fibonacci, fibonacci = x + y
COMPUTE for x, x = y
COMPUTE for y, y = fibonacci
increment i, i++
B