Trace loops

Do one of the following two loop trace programs.

A. JJ Repeat Loop with inner Choices
Trace following code for an input value of num = 4, indicate values at all stages.

-- Mystery Loop with Nested Choices
Boxes num, sum, index ofType int
Box done ofType bool

Input num -- 4
Set done = false
Set sum = 0
Set index = 1

Repeat
    If (index == num) then
        Set done = true ------- done = F F F F T T T T
    EndIf
    Inc sum by index ------- sum = 0 1 3 6 10 13 15 16
    If not done then
        Inc index by 1 -------- index= 1 2 3 4 3 2 1 0
    Else
        Dec index by 1
    EndIf
ExitOn (index == 0)
EndRepeat
Output sum 16

B. Java Nested For Loops
Trace the following nested loops, indicating the result at every stage.

for (int a = 1; a < 4; a++)
    a = 1 1 2 2 2 3 3 3 3
for (int b = 0; b <= a; b++)
    b = 0 1 0 1 2 0 1 2 3
System.out.println (a + b); a+b = 1 2 2 3 4 3 4 5 6