Write a pseudocode to calculate the sum of all integers from 1 to a given positive integer N

```
FUNCTION CalculateSumOfIntegers(N)
   IF N IS NOT AN INTEGER OR N <= 0 THEN
        PRINT "Error: Input must be a positive integer."
        RETURN "Invalid Input"
   END IF

   sum_result = 0

   FOR i FROM 1 TO N
        sum_result = sum_result + i
   END FOR

   PRINT "The sum of integers from 1 to " + N + " is: " + sum_result

   RETURN sum_result

END FUNCTION</pre>
```