Problem: Given a sorted binary array, count the # of 1s in the array

Algorithm modBin

Input: a sorted binary array A, left := 1, right := n
Ouput: the total number of 1's in array A.

Start
if A[left] = A[right] then
  if A[left] = 1
    return n
  else then
    return 0
  esle
fi
m := $\lfloor \frac{left+right}{2} \rfloor$
ln := m
if A[m] = 1 ∧ A[m-1] = 0 then
  return n-m+1
fi
elif A[m] = 1 then
  return modBin (A, left, m-1)
file
else then
  return modBin (A, m+1, right)
esle