High-level Language Programmer's View

main:
   maxNum = 3
   maxPower = 4

   CalculatePowers(maxNum, maxPower)
   (*)
   ...
end main

CalculatePowers(In: integer numLimit, integer powerLimit)
   integer num, pow
   for num := 1 to numLimit do
      for pow := 1 to powerLimit do
         print num " raised to " pow " power is " Power(num, pow)
         (**)
      end for pow
   end for num
end CalculatePowers

integer Power(In: integer n, integer e)
   integer result
   if e = 0 then
      result = 1
   else if e = 1 then
      result = n
   else
      result = Power(n, e - 1) * n
   end if
   return result
end Power

1) Trace the next execution of the recursive function Power by showing the run-time stack.

2) What is the most number of call frames on the stack at any one time for the whole program?