Compute the run time of the algorithm given below as a function of input size ‘n’.

**Algorithm** insertionSort(A, n)
- **Input** array A of n integers
- **Output** sorted array A

for i ← 1 to n - 1 do
  key ← A[i]
  j ← i - 1
  while j ≥ 0 and A[j] > key do
    j ← j - 1
  A[j+1] ← key

return A

**Assume that each of the following basis operations:**
- Evaluating an expression
- Assigning a value to a variable
- Indexing into an array
- Calling a method
- Returning from a method

**takes a unit amount of time to execute.**