

# Analysis of Algorithms: Assignment 1

Due date: September 2 (Thursday)

## Problem 1 (5 points)

Give an algorithm that determines the number of *distinct* elements in an integer array  $A[1..n]$ . For example, if the input array is  $\langle 4, 1, 4, 6, 1 \rangle$ , the algorithm must return 3, since this array has three distinct elements.

## Problem 2 (5 points)

Estimate the worst-case running time of your algorithm, using the technique described in class.