

Homework Assignment: 2

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Date: 3/29/2017

1. XSort Algorithm

(a)

$EXAMPLE \Rightarrow AXEMPLE \Rightarrow AEXMPLE \Rightarrow AEEMPLX$
 $\Rightarrow AEELPMX \Rightarrow AEELMPX$

(b) Time Efficiency: $O(n^2)$ Space Efficiency:

(c)

2. Bubble Sort

(a)

$EXAMPLE \Rightarrow EAMPLEX \Rightarrow AELEMPX \Rightarrow AEELMPX$
 $\Rightarrow AEELMPX \Rightarrow AEELMPX$

(b)

(c)

3. Show that $n^2 \in O(n^2 + 10n), n \geq 0$

4. Show that $n \notin \Omega(n^2)$