Homework Assignment: 2 Name: Jonathan Gaines

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1. X Sorting Algorithm

(a)
$$EXAMPLE \Rightarrow AXEMPLE \Rightarrow AEXMPLE \Rightarrow AEEMPLX \\ \Rightarrow AEELPMX \Rightarrow AEELMPX$$

- (b)
- (c)
- 2. Bubble Sort

(a)
$$EXAMPLE \Rightarrow EAMPLEX \Rightarrow AELEMPX \Rightarrow AEELMPX$$

- (b)
- (c)
- 3. Show that $n^2 \in O(n^2 + 10n), n \ge 0$
- 4. Show that $n \notin \Omega(n^2)$