

CPS212 - COMPUTATIONAL STRUCTURES AND ALGORITHMS

Lab #12 - Writeup

Partners: _____

1. Estimated Big O Complexity

Sorting Algorithm	Randomly Items	Sorted Items	Space Requirements	Additional Comments
Insertion Sort				
Basic Bubble Sort				
Quick Sort				
Simple Selection Sort				
Heap Sort				
Merge Sort (internal)				

2. Record Sort Observations

Mystery Structure	Randomly Ordered Items	Sorted Items	Space Requirements	Additional Comments (determined O)
1	1.	1.	1.	
	2.	2.	2.	
	3.	3.	3.	
	4.	4.	4.	
	5.	5.	5.	
2	1.	1.	1.	
	2.	2.	2.	
	3.	3.	3.	
	4.	4.	4.	
	5.	5.	5.	

3	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	
4	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	
5	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	
6	1. 2. 3.	1. 2. 3.	1. 2. 3.	

	4.	4.	4.	
	5.	5.	5.	

3. Analysis of Data (Calculating C, using this to estimate other times, and calculating the value of percent discrepancy between the estimated time and the actual time:

4. Record which mystery structure matches which search structure (give evidence for your conclusion)

5. Attach the essay.