

ANSWERS TO SAMPLE QUESTIONS FOR FINAL EXAM

CS 340–2

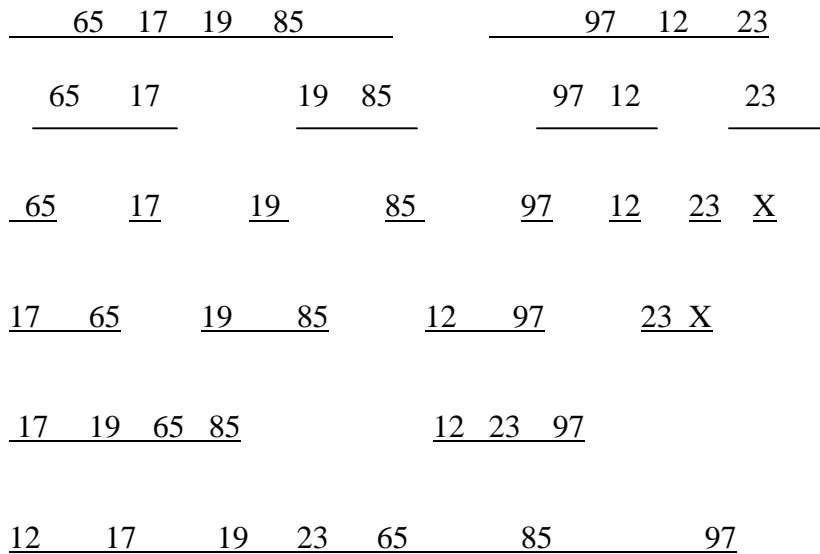
May 5, 2010

1. Shell Sort:

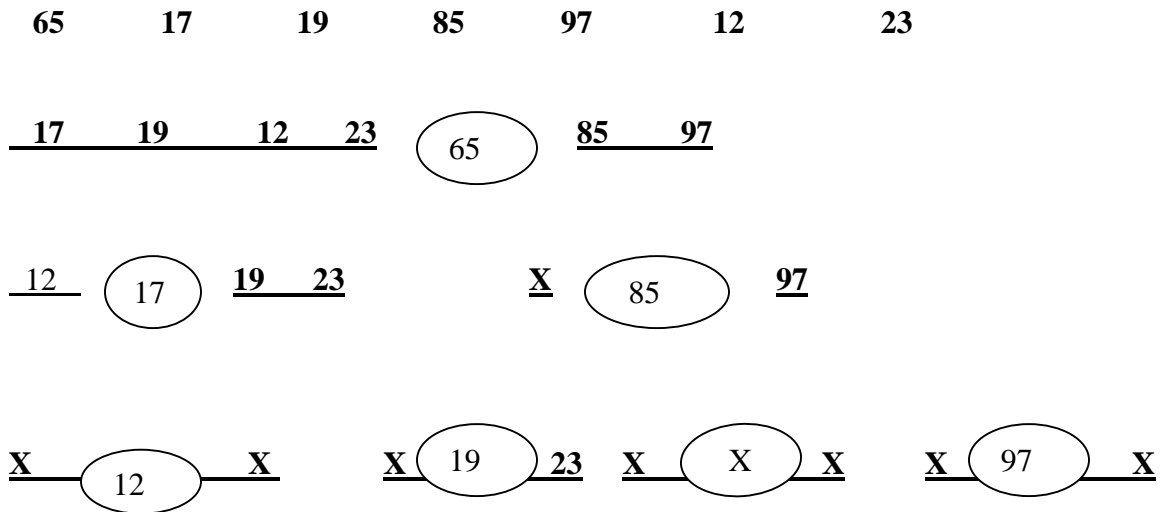
Original	5a	5b	5c	5d	5e	5-final	3a
85	29					29	23
17		17				17	
19			12			12	
65				27		27	27
97					15	15	
54	54					54	
23		23				23	29
12			19			19	
32				32		32	
15					97	97	65
29	85					85	
43		43				43	
65			65			65	97
27				65		65	

Empty cells have not changed from the previous subpass. I added an extra column to show what the dataset looks like after the whole first pass has finished. It makes it easier to see how the second pass looks. You are free to do that or not, as you choose.

2. Merge Sort : 65 17 19 85 97 12 23



3. Quicksort



Note: due to the deficiencies of MS Word as a graphics editor, I can't show the slanted circles on this printout. They would contain the pivots copied from the earlier lines, i.e., 65 on line 3, and 17 and 85 on the bottom line.