

Name: (as it would appear on official course roster)		section 9am, 10am, 11am, 12pm
Umail address:	@umail.ucsb.edu	
Optional: name you wish to be called if different from name above.		
Optional: name of "homework buddy" (leaving this blank signifies "I worked alone")		

h07: Sorting

ready?	assigned	due	points
true	Tue 10/22 02:00PM	Tue 10/29 02:00PM	50

You may collaborate on this homework with AT MOST one person, an optional "homework buddy".

MAY ONLY BE TURNED IN IN THE LECTURE LISTED ABOVE AS THE DUE DATE,
OR IF APPLICABLE, SUBMITTED ON GRADESCOPE. There is NO MAKEUP for missed assignments;
in place of that, we drop the lowest scores (if you have zeros, those are the lowest scores.)

Reading: Sorting, DS 13.1

- (10 pts) Fill in the information in the header. The following are required to get the 10 "participation" points.
 - Filling in your name and umail address.

Also: For paper submission PLEASE submit on ONE SHEET OF PAPER, double-sided if at all possible. If you must submit on two printed sheets write name on BOTH sheets and no staples, paperclips, or folded corners.

Please also read the handout <http://cs.ucsb.edu/~richert/cs32/misc/h07-handout.pdf>

- (10 pts) BRIEFLY: What does it mean to say that an algorithm has "quadratic" worse case running time?
- Show the steps of bubble sort following the example of the solved problems on the handout for the algorithm and the format of your answer.
Stop after any passes with no swaps.

(5 pts) Use bubble sort. Stop after any pass with no swaps.

initial values	70	50	20	80	10
i=4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i=3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i=2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i=1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

(5 pts) Use bubble sort. Stop after any pass with no swaps.

initial values	35	95	12	34	28
i=4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i=3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i=2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i=1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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h07

CS32 F19

(5 pts) Use insertion sort

initial values	70	50	20	80	10
i=0					
i=1					
i=2					
i=3					
i=4					

5. Show the steps of sorts indicated *following the example of the solved problems on the handout* for the algorithm and the format of your answer.

(5 pts) Use selection sort. SHOW ALL ROWS even for passes where there are no swaps.

initial values	70	50	20	80	10
i=4					
i=3					
i=2					
i=1					

(5 pts) Use selection sort. SHOW ALL ROWS even for passes where there are no swaps.

initial values	35	95	12	34	28
i=4					
i=3					
i=2					
i=1					