1/10/2020 h07 - Sorting -

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

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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.)

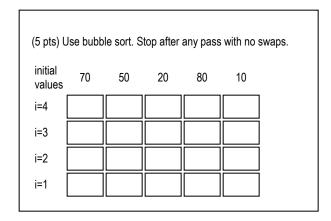
Reading: Sorting, DS 13.1

- 1. (10 pts) Fill in the information in the header. The following are required to get the 10 "participation" points.
 - o 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

- 2. (10 pts) BRIEFLY: What does it mean to say that an algorithm has "quadratic" worse case running time?
- 3. 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	35	95	12	34	28	
i=4						
i=3						
i=2						
i=1						
_						

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4. 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) l	Jse inse	rtion sort			
initial values	35	95	12	34	28
i=0					
i=1					
i=2					
i=3					
i=4					

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 (5 pts) Use insertion sort

 initial values
 70
 50
 20
 80
 10

 i=0
 Image: square of the control of th

(5 pts) Use selection sort. SHOW ALL ROWS even for passes

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

i=1