

Question 7 [12 marks]:

The following is a sequence of five numbers:

30	20	10	40	50
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Use Bubble Sort to sort the five numbers in the sequence into **ascending** order. Show the result of each pass by showing the whole sequence in a new line with sorted numbers underlined.

	0	1	2	3	4
	30	20	10	40	50
Pass 1	20	10	30	40	50
Pass 2	10	20	30	40	50
Pass 3	10	20	30	40	50

1st pass	0	1	2	3	4
	30	20	10	40	50
1st comp	20	30	10	40	50
2nd comp	20	10	30	40	50
3rd comp	20	10	30	40	50
4th comp	20	10	30	40	50
Swap = yes					
2nd pass	0	1	2	3	4
	20	10	30	40	50
1st comp	10	20	30	40	50
2nd comp	10	20	30	40	50
3rd comp	10	20	30	40	50
Swap = yes					
3rd pass	0	1	2	3	4
	10	20	30	40	50
1st comp	10	20	30	40	50
2nd comp	10	20	30	40	50
Swap = no					