Q1. Your Name(s):

Q2. What is the final order? (Just list the numbers)

Q3. How many comparisons did you make?

Q4. How many swaps did you make?

Q5. What basic operation should we count, comparisons or swaps? Justify your choice.

Q6. How many comparisons did you make?

Q7. How many swaps did you make?

Q8. How many comparisons did you make?

Q9. How many swaps did you make?

Q10. List the order of the two 5's in the array:

Q11. How many comparisons did you make?

Q12. How many swaps did you make?

Q13. Does your final order preserve the original order of the elements with the same number? Describe.

Q14. For n=5, give an example of input that would result in the worst-case:

Q15. For n=5, give an example of input that would result in the best-case:

Q16. Comparisons: What is the worst-case Big-, time complexity of Inse

Q17. Comparisons: What is the best-case Big-, time complexity of Insert

Q18. Swaps: What is the worst-case Big-, time complexity of Insertion S

Q19. Swaps: What is the best-case Big-, time complexity of Insertion So

Q20. How many comparisons did you make?

Q21. How many swaps did you make?

Q22. How many comparisons did you make?

Q23. How many swaps did you make?

Q24. How does this compare with the previous run? Anything to note?

Q25. List the order of the two 5's in the array:

Q26. How many comparisons did you make?

Q27. How many swaps did you make?

Q28. Is Selection Sort a stable sorting algorithm? Justify your answer.

Q29. For n=4, give an example of input that would result in the worst-case:

Q30. How many comparisons did you make?

Q31. How many swaps did you make?

Q32. Is this the same or different from the previous run?

Q33. Comparisons: What is the Big-Θ time complexity of Selection Sort?

Q34. Swaps: What is the Big-Θ time complexity of Selection Sort?

Q35. In your own words, describe how Selection Sort works.

Q36. Now describe how Insertion Sort works.

Q37. Finally, describe how Bubble Sort works.

Q38. Comparisons: Bubble Sort (best/worst case):

Q39. Comparisons: Insertion Sort (best/worst case):

Q40. Comparisons: Selection Sort (best/worst case):

Q41. Swaps: Bubble Sort (best/worst case):

Q42. Swaps: Insertion Sort (best/worst case):

Q43. Swaps: Selection Sort (best/worst case):

Q44. What is the code for the swap method?

Q45. Array Accesses: Bubble Sort (best/worst case):

Q46. Array Accesses: Insertion Sort (best/worst case):

Q47. Array Accesses: Selection Sort (best/worst case):