

Sorting Race — Tally Sheet

Name: _____ **Date:** _____

Rule: Every time you COMPARE two cards, tally one mark. Every time you SWAP two cards, tally one mark.

BUBBLE SORT

Starting order: _____

Pass	Comparisons this pass	Swaps this pass
1		
2		
3		
4		
5		
6		
7		
8		

TOTAL Comparisons: ___ **TOTAL Swaps:** ___ **TOTAL Operations:** ___

SELECTION SORT

Starting order (reshuffled to same): _____

Round	Comparisons to find minimum	Swaps
1 (find min of 10)		
2 (find min of 9)		
3 (find min of 8)		
4		
5		
6		
7		
8		
9		

TOTAL Comparisons: ___ **TOTAL Swaps:** ___ **TOTAL Operations:** ___

INSERTION SORT

Starting order (reshuffled to same): ___ _ _ _ _ _ _ _ _ _

Card being inserted	Comparisons to find position	Did you swap/shift?
Card 2		
Card 3		
Card 4		
Card 5		
Card 6		
Card 7		
Card 8		
Card 9		
Card 10		

TOTAL Comparisons: ___ **TOTAL Swaps:** ___ **TOTAL Operations:** ___

Summary

Algorithm	Total Comparisons	Total Swaps	Total Operations
Bubble Sort			
Selection Sort			
Insertion Sort			

Which was most efficient for your data? _____

Which was hardest to follow without making mistakes?

If your data was nearly sorted (only 1 pair out of order), which algorithm would be fastest?
