



Family Name: _____ First Name: _____ UPI: _____ Lab Time: _____

1. discuss the group work questions with your group members
2. complete the activity worksheet

Form groups of size 3 or 4. Introduce yourself to the other members of your group, and record the group members below:

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Task One:

To understand how a Bubble Sort works, let's use it on a few random playing cards to get them in order.



Next, performs a selection Sort with the given playing cards. Finally, performs an insertion Sort with the given playing cards.

Task Two: a) Starting with the following unsorted list:

[37, 43, 22, 59, 62, 68, 78, 81, 83, 91]

Show the elements after each pass when the above list is passed as a parameter to the `bubble_sort()`

1st Pass:

2nd Pass:

8th Pass:

9th Pass:

Can we simplify those steps?

b) Starting with the following unsorted list:

['m', 'w', 'd', 'k', 'g', 'r']

Show the elements after each pass when the above list is passed as a parameter to the `bubble_sort()`

1st Pass:

2nd Pass:

3rd Pass:

4th Pass:

5th Pass:

Task Three: a) Starting with the following unsorted list:

[37, 43, 22, 59, 62]

Show the elements after each pass when the above list is passed as a parameter to the `selection_sort()`

1st Pass:
2nd Pass:
3rd Pass:
4th Pass:

b) Starting with the following unsorted list:

['m', 'w', 'd', 'k', 'g', 'r']

Show the elements after each pass when the above list is passed as a parameter to the `selection_sort()`

1st Pass:
2nd Pass:
3rd Pass:
4th Pass:
5th Pass:

Task Four: a) Starting with the following unsorted list:

[25, 36, 23, 37, 54]

Show the elements after each pass when the above list is passed as a parameter to the `insertion_sort ()`

1st Pass:
2nd Pass:
3rd Pass:
4th Pass:

b) Starting with the following unsorted list:

['m', 'w', 'd', 'k', 'g', 'r']

Show the elements after each pass when the above list is passed as a parameter to the `insertion_sort ()`

1st Pass:
2nd Pass:
3rd Pass:
4th Pass:
5th Pass: