1c)

Time for insertion sort is 33

Best case time for insertion sort is 1

1d)

The worst case time for insertion sort is 104

1e)

Best case time for insertion sort is 1

The worst case time for insertion sort is 9299

2b)

[76, 58, 24, 23, 47, 0, 48, 95, 82, 42, 28, 18, 35, 3, 51, 5]

[0, 3, 5, 18, 23, 24, 28, 35, 42, 47, 48, 51, 58, 76, 82, 95]

3a)

Time for merge sort is 15

time for insertion sort is 375

we can see that merge sort much more better