

1.

a. Sorts the array in ascending order [1, 2, 3, 4, 5, 6, 7, 8, 9]

b. $n(5 + (n + 1 + ((n/2) * 3) + n + 1)) == n(5n + 6) == 5n^2 + n == O(n^2)$

2 int i, temp;

1 if(j < m) {

(1;n;n+1) for(i = j; i <=m; i ++){

1 if(a[i] < a[j]) {

3

}

1 j++;

n one(a, j, m);

2.

a. Tester.java

b. Algorithm is $O(\log n)$ because it divides the search space in half each time